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AN INVESTIGATION OF FOUR ASPECTS OF READING TEXT SELECTION FOR GRADE SIX STUDENTS IN THE BAHAMAS

by

Ruth L. Sumner

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

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Joyce Edwards

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Joan E. Chalmers

Dawn Fay

Date November 20, 1984

DEDICATION

To my family, especially my father whose interest and value in education gave me the strength to go on.

ABSTRACT

The major purpose of this study was to investigate four aspects of reading text selection for grade six students in the Bahamas. The four aspects investigated were:

1. Criteria for reading text selection.
2. Readability.
3. The cultural relevance of the illustrations in two reading texts for the Bahamian child.
4. The cultural relevance of the content in two reading texts for the Bahamian child.

Twenty-eight grade six teachers were asked to rate the criteria in order of importance to them when considering the selection and adoption of basal readers. Then the readability level of two recommended texts used at the grade six level was compared to the reading achievement level of the students. The Flesch Reading Ease Formula was used to determine the readability level of the texts and a set of cloze passages was administered to 176 students to establish a reading achievement level.

The third and fourth aspects of the study investigated the cultural relevance of illustrations and content of the reading material respectively looking at the portrayal of male/female and the elderly, climate, homes, history, customs, minorities and language.

The analysis of the criteria for reading text selection revealed that the teachers indicated that while all the criteria were important, they felt that two were very

important. These criteria, including readability of the material and curriculum gestalt were rated highest on a scale of 1 to 5.

The results of the cloze passages revealed that both books were at least one grade level above the students reading levels.

Most of the illustrations and content of the two texts were considered not culturally relevant. These findings have implications for teachers who are expected to select basal readers for their students.

Finally, the study provided several recommendations for further research.

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Chapter I

INTRODUCTION TO THE STUDY

A school reading programme holds a very prominent place in the over-all school curriculum. It is one of the focal or pivotal areas around which the other subjects revolve. In a school curriculum, specifically a reading curriculum,the basal reader continues to be one of the most important instructional materials. Robbins (1980) indicated that research has supported this claim and in fact basal reader texts are most commonly used for reading instruction in the educational process of many countries. An EPIE report (No. 76, Spring 1976) has revealed that 65% of the child's classroom time in the United States is spent with textbooks. These books have a profound impact on the lives of children and remind educators of the responsibility of the authorities charged with selecting and evaluating the appropriate basal readers which will ultimately influence the child's critical thought processes, ideas and attitudes. The selection and subsequent adoption of basal reading materials is therefore, a crucial decision (Miller, 1981). As Miller (1981) has pointed out, pupil placement, instructional management and pupil progress must also be considered when choosing materials.

The evaluation and selection of basal readers are even more important in countries where the reading materials are imported and have been developed for different cultural, socio-economic and ethnic groups.

Many factors complicate the already difficult task of selecting and adopting a basal reading programme; factors such as the readability of the texts for the specific group using it, its cultural bias, and the relevance of the illustrations to its target audience or consumers. Beck, McKeown and McCaslin (1981) have stated that

> When...readers sit down with their reading books, the text they read should make sense to them. Each interaction with text should reinforce the notion that reading is a process from which meaning is gathered (p. 780).

Beck et. al. (1981) went on to say that meaning must be constructed through a combination of print, picture clues, and information provided by the teacher or elicited from the children during discussion. This emphasizes the role of the teacher in the process and indicates that the selection of a text should not be left to the state or local authorities alone. The teacher should be seen as a catalyst in the whole decision matrix. Consequently, teachers should be acquainted with the criteria used for selecting and adopting a basal reading programme, for, as Robbins (1980) reminds us,

> the basal reader is not just a book, it is a system of learning. It has strengths and weaknesses that text book evaluators need to identify before embarking on a large...educational commitment (p. 398).

A. Statement of the Problem

The Ministry of Education of the Bahamas through its National Conference Committee embarked on a national curriculum development task during 1981-82. The efforts of

this committee culminated in a new reading curriculum presented and ratified during the August, 1981 National Teachers' Conference held in New Providence.

In presenting the curriculum to the teachers, the committee recognized that no one basal reading series would constitute the classroom reading programme. Hence, it recommended a number of basal reading series as possible reading materials. The committee recognized that "Since reading is a developmental process, careful thought must be given to the selection of books and materials that would help the child master the desired skills in a sequential order" (1981).

The committee further noted, as have researchers (Robbins, 1980; Brumble, 1981; Stokes, 1979), that teachers of reading must be able to select and recommend materials that reflect the students' instructional levels. Additionally, recognizing that the Bahamian Educational System is a consumer of foreign produced material, the committee further suggested that teachers of reading must be aware of their need to gather and select materials that relate to their students' cultural backgrounds. This viewpoint is also supported by Edwards, Ollila & Ollila (1975).

So with a new curriculum in place teachers in the Bahamas now have the task of selecting the most appropriate series for the students from among the basal readers suggested by the National Conference Committee. In this

study, the writer of this report has attempted a comparative, descriptive analysis of two of these recommended series using a set of criteria which the Bahamian grade six teachers rated in terms of priority.

Additionally, a sample of students from the sixth grade used the cloze procedure to ascertain the approximate ease with which these books or passages can be comprehended by them.

B. Purpose of the Study

The Bahamian Public School system depends almost exclusively on basal readers with reading materials foreign to the Bahamian experience. It was the purpose of this study to have Bahamian grade six teachers rate a set of criteria for text book selection, and to provide an exploratory and descriptive analysis of two basal readers, the Scott Foresman - 'Sky Climbers' level 10 and the Ginn & Company Reading 720 - 'Measure Me Sky' - level 11 both of which are recommended for use at the grade six level in the Bahamian Public school system.

In particular, this study investigated the suitability of these two reading programmes for use by the Bahamian grade six teachers in terms of three aspects of textbook selection criteria.

The three specific aspects of these two basal reading series were: (a) readability (b) relevance of cultural content of illustrations. (c) relevance of cultural content

of reading materials. All aspects were viewed within the framework of their appropriateness to the grade six Bahamian child.

C. Definition of Terms

For the sake of clarity, the following definitions are provided for the terms used in this study.

All-Age Schools

In the Bahamas, schools in rural communities comprising grades one through eight (sometimes one through ten) are designated "All-Age Schools".

Basal Readers

Basal readers are used in teaching the Bahamian Reading curriculum. More specifically the readers are : Scott, Foresman Reading, previously The Basics in Reading K-8 Scott Foreman Company and Ginn and Company Reading 720. Only the student readers are included in this study.

Culture

Culture is the way of life of a people, including sex roles, treatment of the elderly, minority groups, homes, dress, customs history, climate and language.

Family Islands

In the Bahamas, all the islands other than those on which the capital city, Nassau, and the city Freeport are located,are called Family Islands.

Family Island Schools

Schools situated on all the islands of the Bahamas other than New Providence and Freeport, Grand Bahama are Family Island Schools.

Grade Six Students

These are students who are 10 years of age by or before the 31st of September.

Illustrations

Illustrations are pictures in two selected texts which gave meaning to and assist with comprehension.

New Providence Schools

New Providence schools are situated on the capital island of the Bahamas where the city of Nassau is located and have many more resources available to them than do schools on the Family Islands.

Primary Schools (Elementary)

Schools comprising grades one through six and attended by children age five to eleven are termed "Primary Schools".

Public School system

Schools under the jurisdiction of the Ministry of Education and Culture - not including independent schools, are termed public schools.

Readability

This term will be used to describe the reading difficulty of the texts as well as a device to compare the reading achievement levels of the grade six Bahamian students with the reading difficulty levels of the basal reader texts.

D. Significance of the Study

The study is significant in that the findings can be used as information for future researchers. Also, the study will acquaint teachers with a method of ascertaining whether or not the materials their students are using in the classroom are at the appropriate level of reading difficulty and will make suggestions as to what they can do if the material is not. Finally, the study will acquaint teachers with the processes and procedures involved in both selecting the appropriate basal readers and matching the suitability of the readers to the child.

E. Research Questions

1. How do Bahamian grade six public school teachers rate a set of 8 selected criteria considered important in selecting and adopting a basal reading programme?
2. How well do the two basal readers in this study meet three aspects of these:
   a. How does the readability level of the basal readers compare with the reading achievement level of the

Bahamian grade six child?

b. Taking into account the Bahamian child's cultural background to what extent are the illustrations in the basal readers appropriate and relevant?

c. To what extent are the reading materials appropriate and relevant to the grade six Bahamian child?

F. Procedures

Eight criteria for textbook selection were abstracted from the research literature and presented for rating to a group of 28 grade six Bahamian teachers.

A comparison of two basal reading texts recommended by the Bahamian Ministry of Education was undertaken. The three specific aspects addressed were readability, the cultural relevance of the content of reading materials,and of illustrations to the grade six Bahamian child.

Cloze tests from both basal reading texts were administered to 176 grade six Bahamian students to assess their reading achievement level.

The readability level of each basal reading text was identified using the Flesch Reading Ease Formula, and a comparison drawn between the students' reading achievement level and the readability level of the text.

G. Limitations of the Study

The present research was limited to the following circumstances:

1. Students at the grade six level in the Bahamian Public Schools in Nassau and the Family Islands.
2. The Scott, Foresman - 'Sky Climbers' level 10 students' text,
3. Ginn 720, - "Measure Me, Sky" level 11 - students' text.
4. The comparisons are applicable only to three selected aspects of the eight criteria rated by the teachers.

H. Overview

Chapter II of this study will present a review of the related literature, dealing specifically with content analysis of basal readers, readability and readability formulae and illustrations. Chapter III will describe the demographic structure, aims and composition of the Bahamian Educational System. Chapter IV will present details of the design of the study, method and procedure, the sample and the data analysis. Chapter V will report the findings and discussions of the data analysis, while Chapter VI will report the conclusions, and implications of the research, and recommendations for further research.

Chapter II

REVIEW OF RELATED LITERATURE

A. Introduction

There are many definitions of the concept of reading. It is seen as a developmental cognitive process, in which the reader engages in interactive, reflective, reasoning and problem solving activities. Elkind (1976) extended this meaning to, "the words [a child] reads by relating these to the conceptual system he has constructed in the course of his development," (p. 337).

Henry (1974) defined reading as a process of concept development by which readers discover relations and structures deriving understanding and memory from them. Jenkinson (1973) extended this definition by describing reading as a form of thinking in which the reader uses such mental processes as analyzing, discriminating, judging, evaluating and synthesizing to scrutinize the text content in light of the child's experience.

These definitions and theoretical conceptualizations of reading, though varied and many, have all concluded that, no matter what the definition used or the psychological conceptualization, reading is a process that has to be taught through one approach or another.

Research has indicated that basal reader programmes have been, and remain, the most common and primary source of reading materials used by schools in the United States,

Canada, and England for the teaching of reading (Baker, 1980; Robins, 1980). The EPIE National survey and assessment of instructional materials (1974-75) in indicating that 65% of the child's classroom time was spent with textbooks at the elementary levels, reported that ninety percent of this time was with basal readers. Robins (1980) therefore, could not help but observe that basal readers have a tremendous impact upon children's lives. Subsequently, the responsibility delegated to those who must ultimately evaluate a reading series for selection and adoption by a statewide system or individual school system is substantial. In the Bahamas those responsible must focus upon the factors examined in this study; readability, cultural content of both reading materials and illustrations. The selection and adoption of a basal reading series is therefore a crucial decision, especially when the implementation of the series provides a strong core of teaching materials for the school reading programme.

In spite of the importance of the decision to be made, Durkin (1981) reported that little research has been done on basal materials to determine their suitability.

The best known and most often cited analysis of basal readers was done by Chall more than seventeen years ago. More recent work has been done by Davidson and Alcock in a twin master's theses, cited in Durkin (1981), Jenkins and Pany (1978), Hall (1983) and Beck, McKeown, McCaslin and Burkes (1979).

Three studies by Davidson (1972), Alcock (1972), and Jenkins and Pany (1978) have been done to learn how basal manuals teach comprehension and the researchers concluded that while the manuals were generous in providing definitions, assessment questions and practice exercises, they were limited in what they presented for instruction. The research analyses were all concerned with methodology in teaching reading comprehension and not with whether the basal readers themselves met stated criteria for selection and adoption of the readers for use in a school reading programme, which these writers have concluded is the more important concern.

The researchers referred to above have agreed on some basic criteria that must be considered when analysing and/or selecting basal reading series.

The content of any book or basal reader is of paramount importance to the would-be user. Therefore, teachers who are responsible for selecting or choosing the material must be mindful of the many factors that may influence the interest of the students. The importance of this facet of selecting basal readers is evidenced by the number of content analysis studies carried out over the last twenty years.

The numerous content analyses completed reflected varied and diverse issues; issues that reflect current societal concerns such as sex role bias, multicultural matters, moral judgements, value implications, images of the family etc., as well as the more methodological and

curricular analyses such as readability, sytactic complexity, phonic approaches, word recognition, skill development, vocabulary development and story structure (Chall,1967; Davidson, 1972; Alcock, 1972; Jenkins & Pany, 1978; Beck, Mckeown, McCaslin and Burkes, 1979).

Studies have also been advanced involving more esoteoric content analyses including the effects of illustrations in basal readers. The results of these various studies have to a great extent, helped teachers select materials appropriate for the children they are teaching (Morrow, 1982). This study however did not attempt to analyse all these aspects, rather it concentrated only on the following areas: readability,cultural relevance of the reading material, and the cultural relevance of the illustrations. Related literature in each of these three areas is reviewed below.

B. Readability and Readability Formulae

Many writers have grappled with a definition for readability. Donnelly (1979) said that it is not easy to define readability because it has a specialized meaning in reading instruction; the relative ease with which a child reads a text. Experts nevertheless also compare the reading level of difficulty of a printed page with the reading achievement levels of children. The teacher having this information at his/her disposal could use it to gauge text difficulty in order to select a book or supplementary

material which matches the range of language capabilities and reading abilities of his pupils (Donnelly, 1979; Mobley, 1980). Teachers were warned that even though this information is important, the formulae used to ascertain the readability levels are far from precise and are fraught with problems (Mobley, 1980). Hence,any decision with regard to the text/pupil match should be made judiciously as each formula derives its own readability level using different elements in the formula. As well, there are other esoteric factors such as attitudes and print size, etc., that influence the readability of a printed page.

Although there is a wide array of readability formulae in the literature, Stokes (1979) warned that teachers must use them with caution and should desist from attempting to validate a formula by means of correlating it with another formula. To do this would yield unsatisfactory information.

Rather, teachers should keep constantly in mind that different formulae will yield different and wide levels of difficulty, even within one text. Nevertheless, these formulae could provide information that will aid the teachers in rank ordering the reading difficulty of passages to the extent of matching the suitability of the child to that text, thus making sure that the child is within a readability range in accordance with his own reading ability.

Over the last half-century many readability formulae or procedures have been devised to attempt to predict and

quantify or measure the ease of reading level of a text (Klare, 1974-75). The formulae that are best known and are more frequently used by teachers will be presented, and the one used in this study will be identified.

Dale and Chall Formula 1948. This particular formula cited in Klare (1974-75) was actually developed for adult material. However, along with Flesch's Reading Ease Formula the Dale and Chall formula was soon one of the most popular and widely used in elementary school classrooms. Its intention was to correct known shortcomings found in Flesch's original formula.

The Fry Formula 1965 - The Readability Graph. This graph was developed for predicting readability. Many regard it as a time and effort saver. Fry used the common formula variables of syllables per 100 words and number of words per sentence. Anyone using this graph only has to enter counts of these variables in a graph and read the readability grade score straight from it. This graph has been validated on primary and secondary materials. The scores obtained from it match those of other well-known formulae. Although this formula could have been used satisfactorily in this study, the Flesch formula was considered a better choice for reasons cited below.

The Bormuth Fromulae 1969. To date Bormuth has done the most extensive readability analyses (Klare, 1974-75) resulting in the development of 24 readability formulae. Using the cloze procedure as his measure of difficulty,

deleting every fifth word, he used all 5 parallel versions of the deletion ratio, giving his research much credibility.

He supplied different kinds of readability measures which were not given before. For example, there were independent formulae to predict word length, sentence length and passage length. This formula was not used because it was too complex and time consuming.

The Spache Formula 1953. Spache developed his own readability formula for children's materials for grade 1-3. This formula was validated against levels of classroom use with over 100 books used with the grade levels. To increase the accuracy of Spache's formula, Stone (1956) replaced 173 words in the Dale list of 769 with an original from Krantz's. Spache decided to follow this method and in 1974 he revised his original formula. This is a very popular formula but was inappropiate for use in this study because of its primary school focus.

The Flesch Formula. Using the original McCall-Crabbs lessons as a criteria, Rudolf Flesch (1943) produced his first formula intended for adult reading materials. Unlike the other formulae, he felt that it gave proper attention to abstract words and sentence length. Discovering in 1948 that his counts of affixes were too time consuming, his count of personal references misleading, and the resulting score not satisfactory, he then made two new formulae one of which is the Flesch Readability Ease Formula, one of the most widely used formulae in readability measurement and this

researcher's choice for use in this study. The readability measurement gives a reading ease score(RE). An example follows: RE = 206.835 - (0.846 x NSYLL)-(1.015 x W/S) where, NSYLL is the average number of syllables per 100 words and W/S is the average number of words per sentence. The readability score can be derived directly from the Flesch Reading Ease Formula and then the reading ease score can be translated into grade and chronological age levels as indicated in Table 1.

TABLE 1

FLESCH READING EASE SCORE TRANSFORMATION

Flesch Reading Ease Formula Score	Estimated Grade Level	Chronological Age Level
90-100	5	10
80-90	6	11
70-80	7	12
60-70	8- 9	13-14
50-60	10-12	15-17
30-50	13-16	18-21
0-30	College or above	

The Flesch Reading Ease Formula was chosen for use in this study because it started at the intermediate grade level,the level under consideration in this study. Also the Flesch formula yielded a smaller average difference from the mean than other formulae(McKinney, 1983).

In addition the author of the formula provided an estimated grade and age level, therefore saving time and making the formula easy to work with.

C. Cultural Content of Illustrations

Writers such as Morris (1946), Carpenter (1953), and Gibson (1954) have all developed theoretical bases for using illustrations in textbooks, especially at the elementary level. Morris devised the econicity theory, Carpenter posited the sign similarity orientation theory while Gibson spoused the theory of pictorial perception. The basic tenet of each of these theorists is that learning will be a more complete process as the number of cues in the learning process increases (Bluth, 1981). However, the literature on the use and effects of illustrations in books for children revealed conflicting results.

According to Bluth (1981) the more basic question of whether illustrations facilitate or hinder learning, needs to be addressed. One school of thought holds that illustrations facilitate learning; the second posits illustrations as inhibiting learning. Each position will be addressed,but the research to date has not examined the cultural content and effect of illustrations which is part of the focus of this study.

Illustrations Facilitate Learning. Zisman (1938) asserted that the function of illustrations is to make "more concrete whatever may be difficult or elusive in reading comprehension because of abstraction or vagueness" (p. 251).

In supporting this opinion, Howard (1947) said that the original intent of using illustrations in school books was to clarify and supplement text, thus providing visual

satisfaction on aesthetics and visual communication that aid the students' understanding of the text. The assumption is that visualized material presented in a more realistic fashion results in a more effective transmission of the message (Dwyer 1969). The findings would only be valid if the illustrations were relevant to the culture of the reader; in this study, the Bahamian culture.

Illustrations Inhibit Learning. This school of thought believes that illustrations hamper learning. Miller (1957) for instance, argued that illustrations or cues "can be considered a source of interference and could constitute a hindrance to rather than a facilitator of learning." (p. 245). Other proponents of this school of thought (Koenke, 1968; Chall, 1964; Durkin, 1970), have all seriously questioned the use of illustrations in basal readers as an aid to facilitating understanding. Chall, (1964) for example, went to the extent of conversing with the authors of basal readers as to the importance of illustrations in texts. The interview revealed no consensus concerning the importance of the inclusion of illustrations. Chall commented further that the authorities on phonics claim that too many pictures may in fact be distracting to the reader.

It is important to note that the debate between the two schools has some support in the literature (Bluth, 1981). It is more important to note, however, that neither side has proved conclusively that illustrations are of consequence or

no consequence to the child's understanding of the material in the text. The results were quite conflicting to say the least; for instance, Bluth (1981) pointed out in a study that where illustrations failed to facilitate comprehension of passage meaning of poor readers, the same illustrations enhanced comprehension of good readers. The implication to be drawn from this is that good and poor readers benefit differently from a similar reading comprehension task. Concannon (1975) noted however, that linguists are strongly opposed to illustrations except when their use serves to introduce unknown objects. Both basal readers analyzed in this study used illustrations, but the controversey over their use or otherwise is not pursued. Instead, the illustrations were judged on their cultural content.

One avenue pursued in the research literature indicated that the position of illustrations in the text is important to the child, and therefore should be an important consideration for text book selection. Moon & Raban (1975) noted that illustrations and text should be complete on the page or facing pages. They found that, "where two or three lines of a text are placed above an illustration with a larger block of text below the illustration, children often omit the text above" (p. 45).

It was interesting to note further that especially for early readers, where the intention is to encourage a left-right eye orientation, textbooks that position the illustrations on the left, and text on the right would be

the most appropriate way to achieve this.

For a more complete review of studies on illustrations in books for children and the relationship of illustration to comprehension, the readers are referred to Cancannon (1975) and Bluth (1981) respectively. Having reviewed many studies, both authors concluded that due to the mixed results, numerous variables need further investigation. However, illustrations as a criterion for selection of basal readers is still an important issue for consideration. In this study the illustrations used in the two text books were judged only on cultural relevance, or irrelevance, but a follow-up study might address further the specific characteristics of these illustrations(e.g. color,position on the page).

While the debate continues as to the place of illustrations in the reading books,illustrations remain one of the criteria used by teachers in making selections or utilization of a basal series. Concannon (1975) said, however, that the pictorial content is not a serious factor in textbook selection and / or utilization. He highlighted factors such as validity of the content, vocabulary control, length and complexity of sentences, workbook usability and the interest level of the group as more important. While this may be so, this writer found this argument somewhat limited in that it is tied to stories especially in the "here and now", but many culturally relevant stories are from the past and illustrations become more important. The

visualized material if presented in a more realistic fashion (either the present or the past) should result in a more effective transmission of the message consequently sustaining the child's interest. Thus, the old proverb "a picture is worth a thousand words" still has its place in textbook selection. This viewpoint is borne out particularly in the early school years when illustrative depictions and wordless story books keep the attention of the young child while serving as a source of motivation.

The literature then,offered very little specific assistance to the researcher in terms of the cultural relevance of illustrations.

D. Cultural Content of Reading Materials

In this study culture was defined as the way of life of a people, including traditions, occupations, sex roles, treatment of the elderly, dress, and customs. The cultural content of reading materials was reviewed in the literature in three chronological periods; before 1960, during the 1960s and after 1970.

Before 1960. Robins et. al. (1979) conducted a study in which they looked at the multicultural representation of characters of the reading text, widely used in Florida and Southern California. They reported that before the early 1960s reading text books almost always portrayed an all white world. Any representation of minorities was minimal or none existent. The roles in which they did appear were

insignificant or stereotyped. For example, mothers were always wearing aprons or mending.

During the 1960s. During the civil rights movement of the 1960s in the United States of America, publishers were pressured to include minorities more often in textbooks (Robins et. al. 1979). This pressure however, resulted in only token unacceptable representation. For example, in some reading texts, minorities were usually smaller than the white characters, and they would usually have their backs to the reader. While they were included in the illustrations they spoke very little if at all. When the setting was in an urban area minorities were portrayed more often and played more prominent roles in the illustrations and content but often these roles were undesirable and stereotyped. For example, the minority character would be the robber. Usually then, minorities were featured as supporting characters instead of leading characters.

During this period, textbooks were biased against other groups of people as well. When women and girls were portrayed they were always in stereotyped, limited roles. There were very few male/female stories in which both were solving problems together and fewer still which included only females. Minority females were depicted only as holding the lowest paid jobs such as maid servant. Stories portraying the handicapped were almost non-existent while the elderly were featured in inactive positions.

After 1970. After the textbook revisions of the late 1970s, Hispanics and Native Americans were featured in contemporary settings, whereas before they were only seen in historical settings (Robins et. al. 1979). Females now appeared more often in non-traditional roles. There was a small increase in stories which included the elderly in active roles.

While these could be considered improvements, Robins et. al. believed publishers still have a long way to go. For example, the number of stories featuring all minorities were very small compared to the number of stories portraying all-whites. Also, the number of minorities as principal characters in stories with two or more cultural groups were small compared to those stories with two or more cultural groups in which whites were the main characters.

Robins et. al. (1979) concluded that while some improvements have been made, bias that can negatively affect young readers was still present, and if children are entitled to develop to their fullest potential, then they should not be crippled or handicapped by cultural restrictions, sex biases or stereotyping of any kind.

Selected literature regarding the portrayal of the roles of men and women, the elderly, minority groups and related concerns such as homes and customs is now addressed.

Portrayal of Men and Women. A number of research studies have been carried out on sexist content in reading material in particular basal readers (Graebner, 1972;

O'Donnell, 1973; Hilliman, 1974; Lindberk, 1975-76; Marlen, 1976) cited in Rupley et. al.(1981). Tibbetts (1975), reported that most of the studies reviewing readers for sexist content concluded that the textbooks are generally sexist (male dominated), and since what students read could affect the way they look at themselves and others, Tibbetts believed that sexist stories may be harmful to boys as well as girls.

The findings of an investigation by Britton and Lumpkin (1977) showed that very little change in male domination roles had taken place between 1958 and 1974. The authors disclosed no significant change in the number of stories with males versus females as the main characters. It was stated, however, that most of the books were developed before the great concern for equal representation of the sexes. Rupley et. al. in a 1978 study agreed that publishers were making a good effort to equalize the situation, that is, to portray females as often as males in the story content.

However, in an earlier study Marten and Matlin (1976) reported some appalling findings from their review of research. They reported that the possibility of men having leading roles or being main characters was usually three times greater than women. Like Britton and Lumpkin (1977), Rupley et. al. concluded that " changes have been minimal..." up to the mid-1970s. That females are being given a little more representation in the illustrations as

well as in the leading roles in the stories, has been revealed in a study carried out by Marten & Matlin themselves (1976). However, they felt that merely showing females was not sufficient. Rather they should be seen in active, important and equal roles if children are to see men and women as equals.

These researchers concluded that while females are being shown slightly more now than in earlier days they are still very much under represented. Also, textbooks still give the impression that independence, initiative, and innovation are traits reserved for males.

In the Bahamian culture, children do not see much distinction between men and women in their job description, for women have been working for a long time and holding equal job positions as men. Women are no longer just the home-maker,but play as important a role as men in the Bahamian society. Therefore, the question of how men and women are portrayed in stories in readers was considered important to investigate in this study.

Portrayal of the Elderly. Some studies discovered that the role of the elderly in textbooks was very negative. When elderly characters were presented they were depicted as inactive, uninteresting persons who did not experience a full range of human emotions, Barnum, (1977b) and Ansello, (1978) cited in Watson (1981).

Other researchers have found however, that these negative stereotypes were not as common as they had expected

(Sellzer and Alchley, 1971; Peterson and Karnes, 1979) cited in Watson (1981). There appears to be a wide variety of elderly characters which range from the senile and helpless to the friend, babysitter or the swinging grandmother.

Children in the Bahamian culture do not see the elderly in this negative way therefore highlighting the need to investigate the portrayal of the elderly in this study.

Portrayal of Minority groups. Textbooks printed in North America have been strongly criticized for reflecting a white middle class society and ignoring the contributions of minority cultural groups (Kirkness, 1977). To overcome this problem Kirkness claimed that publishers of textbooks decided to color white faces brown and simply " write in " Blacks, Indians or other ethnic minorities.

However, she reported this was not enough. Instead there was a great need to reconstruct the content and methodology to reflect a realistic depiction of the plurality of the society, in the past as well as in the present. In North American text books the portrayal of the Native Indian was prejudiced. Rupert Costo (1977) editor of "Textbooks and the American Indians" made the statement cited in Kirkness (1977) that " Every one has the right to his own opinion. A person also has the right to be wrong. But a textbook has no right to be wrong, tell a lie, evade the truth, falsify history or insult or malign a whole race of people". (p.596)

The Indian people contend that textbooks that patronize and degrade Indians are harmful to their children's sense of cultural dignity (Kirkness, 1977). The Indians feel they have a rightful place in the North American society and that their culture, customs, values and contributions should be recognized. In the textbooks the Indians were the ones depicted in the degrading roles (Kirkness, 1977). For example, in earlier studies the Indians were the ones portrayed as thieves, savages, drunks or murderers.

A comparison of studies done on text prejudice indicated that textbook researchers all concluded that Indians, by far received the worst treatment of any minority. These researchers also discovered that more recent textbooks still contained prejudice but in a less obvious way (Kirkness, 1977).

The Bahamas is a country with 80% of its population black or mixed and the remaining 20% white. Unlike the North American situation there is no great color distinction among Bahamians. A Bahamian is a Bahamian whether he is black or white and all receive " equal " treatment. There is no disernible cultural difference. However, there are other minorities, one of which is the Haitian.

The proximity of the Bahamas to North America and in particular, the use of American reading texts in the Bahamas could influence how children view minorities. Therefore, the portrayal of minorities in basal reading materials was considered important in this study.

Also thought by the researcher to be important in the discussion of cultural content of reading materials were aspects such as customs, homes and climate. No research studies were found that relate to these concerns but they will be addressed in this study.

E. Summary

This review of the literature dealt with three areas considered pertinent in the selection and the adoption of basal readers and the areas addressed in this study: readability, cultural relevance of the content of the illustrations and the cultural relevance of the reading materials. The literature pointed out that readability of the text is important because there needs to be some consonance between the text and the child if the child is to get the maximum benefit from that text. It further pointed out that the appropriateness of the cultural relevance of the content of the illustrations and reading materials is significant to help the child to decipher meaning and glean understanding from the text.

Chapter III

THE BAHAMAS EDUCATION SYSTEM

This chapter describes the Bahamian Educational System, but before doing so it is necessary to present a brief geographical and historical description of the Bahamas in order to provide a clearer understanding of the nature of the influence, composition and administrative problems of education in the Bahamas.

A. The Geography of the Commonwealth of the Bahamas

The Commonwealth of the Bahamas is an archipelagic nation comprising about 700 islands and more than 2000 rocks and cays lying between latitudes 20°55' and 27°25' north and longitudes 72°35' and 79°35' W. The total land surface area of the islands is approximately 5,380 square miles (Commonwealth Yearbook, 1984). The group of islands forms a stepping stone spreading over an expanse of sea of about 100,000 square miles in area, starting from approximately 50 miles off the Florida coast to about 60 miles off the coast of Haiti. These islands range in size from 2,300 square miles (Andros, the largest inhabited) to the smallest inhabited island of Spanish Wells - 1/2 sq. mile. About 30 of these 700 islands are inhabited but the Ministry of Education Schools are operated in only 23 of these islands. Figure 1 is a map the Bahamas and its relationship to Florida and Haiti (Evans, F.C., and Young, R.N., 1976). Figure 2 illustrates the islands in relationship to each

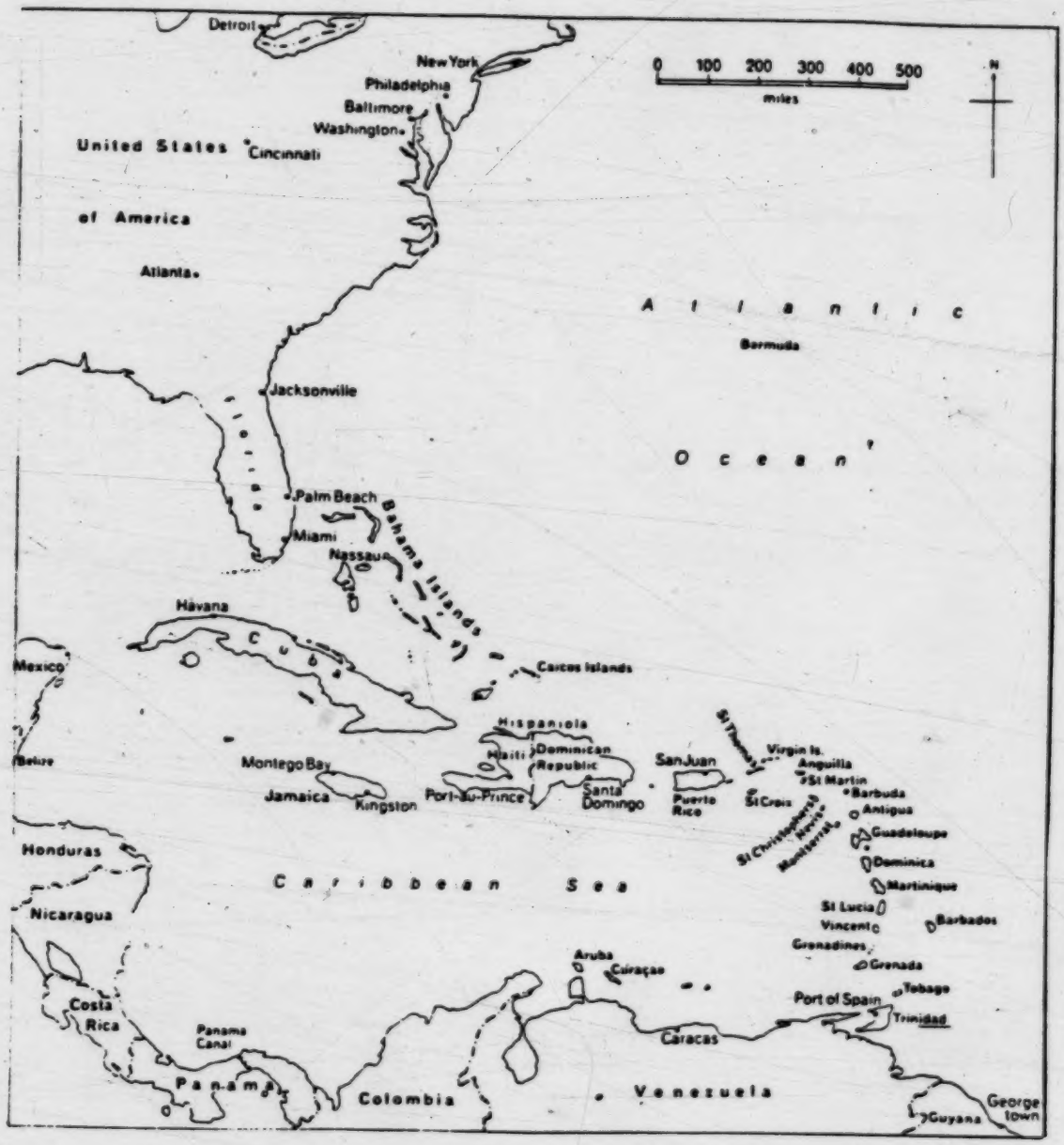

Figure 1

Map of The Bahamas showing its Relationship to Florida and Haiti.

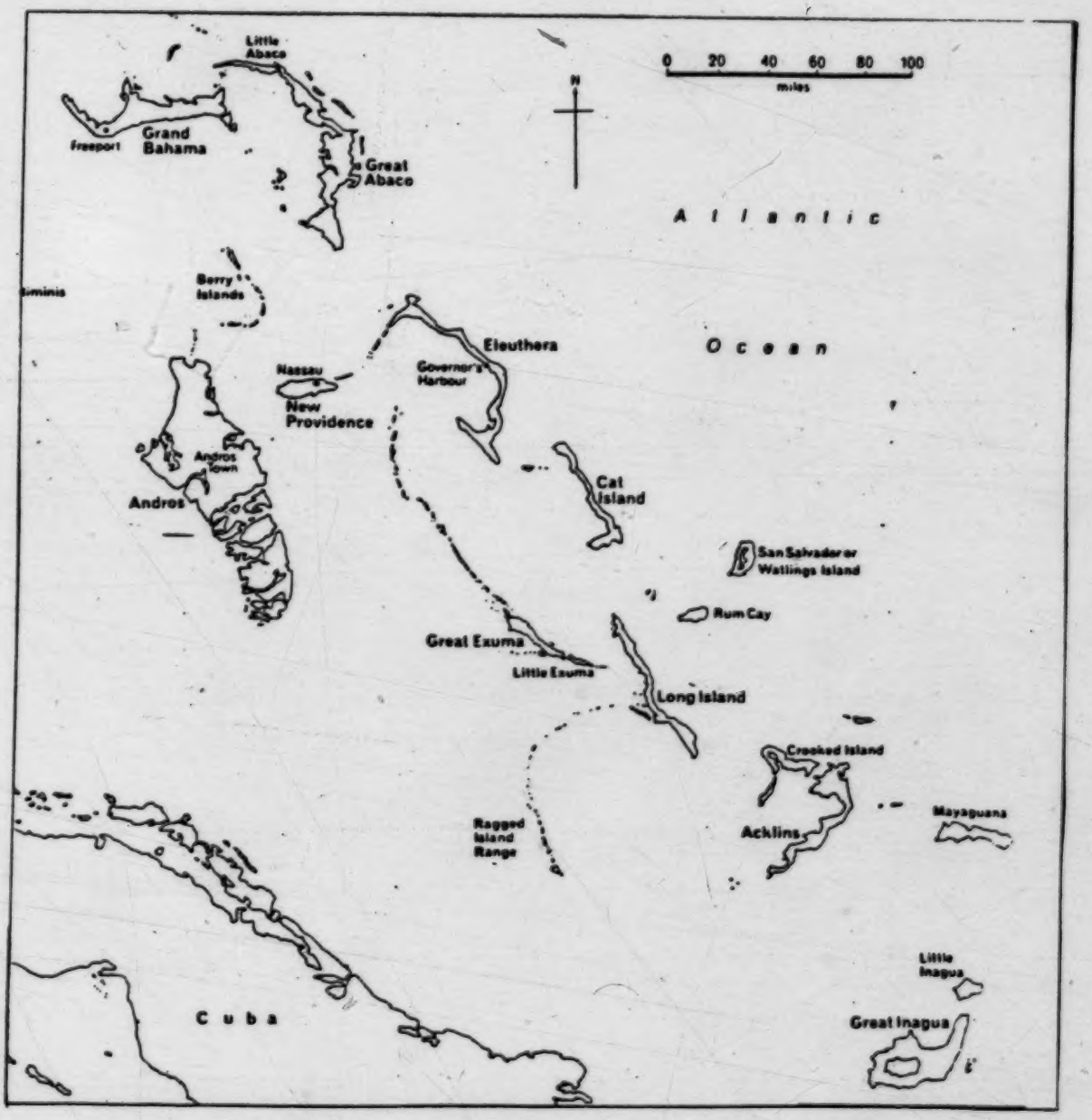

Figure 2

Map of The Bahama Islands showing their Relationship to Each Other.

other (Evans, F.C. and Young, R.N. 1976).

There exists among the islands a great contrast in population. The last census (1980) reported a total population of 237,090 (Yearbook of the Commonwealth, 1984). Sixty percent of this population resides in New Providence, the principal island which is the seat of government and the centre of commerce and trade. The remaining islands have a population ranging from 15,000 (Grand Bahama) to as few as 18 people (Long Cay). The average population density of the islands is only 31 persons per square mile (Yearbook of the Commonwealth, 1984). The population density of the islands therefore, influences the number and type of schools in the various islands.

B. History of the Bahamas

The Commonwealth of the Bahamas became independent of Great Britain on the 10th of July, 1973, after being a colony since Columbus landed on San Salvador and discovered the New World in 1492.

C. The History of the Educational System

Like most of the Caribbean Islands, education in the Commonwealth of the Bahamas was introduced in about 1718 by various religions or evangelical missionary societies. Education remained mainly the responsibility of these evangelical societies such as the Society for the Propagation of the Gospel (SPG), Weslyan Methodists

Missionary Society (WMMS) and the Baptist Missionary Society (BMS) until the end of the 19th century. A series of Education Acts were passed in the Bahamian Parliament during the second half of the 19th century that established the Government of the Bahamas as the full and responsible authority for the education of its citizens. Under the Acts however, the various religious societies continued to retain their church (independent) schools with some financial assistance from the Government.

D. The Legal Basis of the Educational System

The two principal education acts governing education in the Bahamas are the 1962 and 1964 Education Acts. Both of these acts - modelled in principle on the 1944 Education Act of the United Kingdom, placed the Bahamian educational system under the jurisdiction and full authority of the Ministry of Education, headed by a Minister. The Acts gave the Minister full responsiblity for all levels of education in the islands; primary, secondary, higher, technical and professional: whether it be public institutions or independent institutions maintained and or assisted by government funds.

E. The Organization of Education

Education in the Bahamas is organized into three progressive stages:

Primary 5 - 10 years

Secondary 11 - 16 years (Junior/Senior)

Further Education 17 Technical & Tertiary education

Primary and Secondary education, whenever possible are provided in separate school facilities, for example, in islands where school age population density warrants separate facilities. However, in many of the more sparsely populated islands, the All-Age School concept is still very much in vogue. The All-Age concept comprises all grades from 1 through 12.

F. Schools

There are approximately 226 schools in the Bahamas including private and independent schools. Of these, about 184 are government owned and managed with at least 38 situated in New Providence alone. The remaining 146 schools are scattered throughout 22 other islands (Farquharson, 1979). Table 2 illustrates a distribution of schools in the various islands in the Bahamas.

Since 1965 the All-Age concept in the sparsely populated islands was being replaced by the central secondary school concept. This concept is recognized as a feasible alternative in an attempt to meet the need as well as the growing demand for a better type of education than was available in the scattered ill-equipped All-Age Schools in the islands. This system makes provision for students 11 years and older from neighbouring districts on any given island to converge at one central location for instruction.

TABLE 2

MINISTRY OF EDUCATION AND CULTURE SCHOOLS 1976/77*

ISLAND	SCHOOL					
	Primary	All-Age	Jr High	Jr/Sr High	Sr High	Total
Abaco & Cays	2	14		1		17
Acklins		9				9
Andros	5	16		1	1	23
Berry Island		1				1
Bimini		1				1
Cat Island	4	6		2		12
Crooked Island	6			1		7
Eleuthera	2	16			2	20
Exuma		14			1	15
Grand Bahama	5	7		2		14
Harbour Island		1				1
Inagua		1				1
Long Cay		1				1
Long Island	8	6		1		15
Mayaguana		3				3
New Providence	26	1	6	1	4	38
Ragged Island		1				1
Rum Cay		1				1
San Salvador	3			1		4
Total	61	99	6	10	8	184

*Source:
Farquharson Verdie M. 'Teachers in the Bahamas' unpublished master's thesis, University of Alberta (1979)

The Central Schools are designed, equipped and staffed, principally in the same manner as High Schools in the more developed islands.

G. The Administrative Structure of Education

The constitution of the Bahamas provides for a Minister of Education as the ultimate responsible authority for education in the Nation. However, much of the day to day administration is delegated to the top civil servants.

The Permanent Secretary is the administrative civil servant head of the Ministry of Education. He/She is assisted by a Director of Education who is the professional head of the Department of Education within the Ministry. Between them they share the duty of the daily conduct of all administrative and professional matters pertaining to education in the nation.

In spite of the geographical makeup of the Bahamas, education is very highly centralized. That is to say, educational affairs are conducted from one central ministry. There are no local school authorities in the various islands except for the Senior Professional Officers in the name of District Education Officers (DEOs) who represent the Ministry of Education in many islands.

The Ministry of Education recognized this shortcoming in its structure. A 1976 Education for National Progress Report recommended that the government democratize the educational system:

1. To allow for the participation of key individuals and groups in the formation, interpretation, delivery, and implementation of educational policy.

2. To delegate authority and responsibility throughout the Commonwealth to encourage local initiative in responding to local needs and problems (p. 14)

H. The Bahamianization of the Education System

The British have had strong influence in the educational system of the Bahamas, but the geo-cultural proximity to the United States has had an equally profound impact on educational development. Thus, the present system of education combines aspects of British and American educational philosophy and practices within a Bahamian content. Table 3 illustrates the mixture of the two systems.

The Bahamian government however, acknowledges that schools are recognized the world over as the most important agency for socializing the citizens, and thus the educational policy of the government since 1965 has been to develop a system that is Bahamian in philosophy and in substance (Report of a review team 1974.) To achieve this goal, the government has initiated a Bahamianization policy of the educational system. What this means in effect is, where-ever practicable, feasible and academically advisable to put Bahamian teachers, administrators and professionals in positions of authority and responsibility in the educational system, as well as to promote the development and construction of indigenous learning materials for the

Table 3

ILLUSTRATION OF THE STAGES IN THE BAHAMIAN SCHOOL SYSTEM

AGE	GRADE	TYPE OF SCHOOL		EXAMINATIONS
•				
•				
•				1. Technical Colleges
25				2. College of the Bahamas
22				C.O.B.
24				3. Universities in Canada
23				Britain
22				U.S.A.
21				U.W.I.
20				
19				
18		**FORM VI**		1. Private high schools - G.C.E. A' Levels
17	13			2. C.O.B.
16	12	Senior		1. External exams - G.C.E. O' Level, R.S.A.,
15	11	High	3	City & Guild
14	10	School		2. C.E.E.B. - S.A.T.
13	9	Junior		National examination - B.J.C. - Equivalent to 10th grade U.S.A.
12	8	High	3	& Canada
11	7	School		2. Placement exam for senior high school
10	6	Primary		
9	5	or		Non-standard placement test
8	4	Elementary	6	for entry into junior high
7	3	School		school
6	2			
5	1			
4	Kindergarten - Private - Nursery, Day Care			
3	(Pre-school)			

G.C.E.: General Certificate of Education - London
R.S.A.: Royal Society of Arts - London
City & Guild: London
C.E.E.B.: College Entrance Exam Board - U.S.A.
B.J.C.: Bahamas Junior Certificate

C.O.B.: College of the Bahamas

schools.

This change in the administrative structure coupled with the Bahamianization policy of education in the Bahamas puts into perspective the necessity of this small scale exploratory study. In essence, when the authority and responsibility have been delegated to the schools and islands, teachers must be in a position to act. One of the important areas they will be required to act upon is in the selection and adoption of learning materials for their local educational needs. In order to respond to these matters, teachers and principals, school board members etc. will need to know several things. For example, the readability level of the texts, the reading achievement level of the students, content of the books as well as whether the programmes of these books help to further the objectives of the reading curriculum. This study then, is a small but important beginning towards that end.

I. Summary

This chapter highlighted the wide geographical expanse of schools through-out the Bahamas and put into focus the diversity of the administration of education in the country. It also pointed out the intention of the government to decentralize the system, therefore, giving more local autonomy to the various school bodies in the respective islands and by implication underlining the importance of teacher selection and adoption of texts.

Chapter IV

DESIGN OF THE STUDY

This chapter will present the design of the study, giving details of the procedure, the teacher and student samples and the data analyses. The study is primarily an exploratory and descriptive analysis which seeks to assess the relevance of two of the basal readers recommended for use as texts in teaching the Bahamian reading curriculum.

A. Procedure

The study was conducted in four steps:

1. The rating of a set of eight criteria by 28 Bahamian teachers concerning relevancy in the selection and adoption of foreign texts to a Bahamian situation.
2. An exploratory and descriptive analyses of two basal reading texts recommended by the Bahamian Ministry of Education was undertaken. The three specific aspects addressed in each book were: readability, the cultural relevancy of the content of illustrations and reading materials to the grade six Bahamian child.
3. The readability level of basal reading text was identified using the Flesch Reading Ease Formula, and a comparison drawn between the students' reading achievement level and the readability level of the text.
4. Cloze tests from both basal reading texts were administered to 176 grade six Bahamian students to assess their reading achievement level.

The procedure used for each of these four steps follows.

Criteria Selection and Rank Ordering. A sample of 28 grade six teachers from 30 schools in New Providence and the Family Islands rated the criteria. The 30 teachers were given a questionnaire (two did not complete the task) listing eight criteria for selecting basal readers (Appendix A) and were asked to rate the importance of each criterion on a scale of 1 to 5. One (1) was not very important and five (5) very important. Each of the eight criteria had sub-parts.

The set of criteria used for this study was based on and adapted from a set of criteria compiled by J.R. Bruce Cassie and Ken H. Styles for "Reviewing and selecting Books and Learning Materials for School Use" (1981), (Appendix B). These criteria which the teachers rated in order of importance to them when they were considering the selection of basal text for their classroom were:

1. <u>Suitability of the nature of the learner</u>

    a. Maturity of the student - age and grade.
    b. Social, cultural, economic, religious background.
    c. Need for specific knowledge, skill, development.

2. <u>Teachability of the book or learning material for the teacher</u>

    a. Familiarity to teachers, reputation of the book.
    b. Availability of teacher guides.
    c. Suitability for enhancing student knowledge, skill, effect.
    d. Appropriateness for encouraging student interest.

3. Appropriateness of the content

   a. Balance between contemporary and classical selections.
   b. School policy based on ministry mandate.

4. Physical format of book or learning material

   a. Durability of binding.
   b. Appropriateness of layout and use of illustrations.
   c. Size and legibility of point.
   d. Quality of paper.
   e. Cover design.
   f. Convenience of size of book or materials.

5. Literary merit

   a. Thematic concerns reflecting universal and particular applications.
   b. Depth, scope, variety of characterizations, plot and setting.
   c. Masterful control of direction and style.

6. Teachability of the book or learning material for the student

   a. Readability of work, degree of difficulty of vocabulary.
   b. Appeal of subject matter, motivational value.
   c. Complexity of sentence structure.

7. Moral and philosophical viewpoint

   a. Opportunity for suitable vicarious experience.
   b. Avoidance of undue emphasis on sex and violence.
   c. Acceptable treatments of issues relating to race, colour and creed.
   d. Contribution to the development of positive attitudes, values and morals.

8. Curriculum gestalt

   a. Contribution to "total" design for grade 1-6 curriculum.
   b. Importance of the book or learning materials within the particular curriculum.

In addition, teachers were asked to add any other criteria that they felt were important and a space was provided for them on the questionnaire. In the origional set

of criteria there were ten categories of which the investigator used five for the study. The five used were:

1. Nature of the learner which was changed to Suitability of the nature of the learner.
2. Program gestalt renamed Curriculum gestalt.
3. Teachability of the book or learning material. (A.) Teacher; (B.) Student. This particular criterion was divided into two separate criteria.
4. Appropriateness of content (A.) Ministry mandate; (B.) Literary merit; (C.) Moral and philosophical view-point; (D.) Language usage. The fourth part was omitted (language usage) and each of the other three were used as independent criteria.
5. Physical format of book or learning material was used as it was in the original set of criteria.

This new set of criteria was arranged in no particular order for the questionnaire as the concern here was to see how teachers would rate the criteria in order of importance to them.

Choosing of the teacher sample to complete the questionnaire is described in a later section.

The results of the survey then enabled the researcher to report on the rank ordering of a set of eight criteria considered important in selecting and adopting a basal reading programme by a sample of grade six public school teachers.

Description and Evaluative Analysis of Three Aspects of Two Reading Texts. The two texts were: Smith G. R., Tierney, J.R. " Sky Climbers" - level 10.

Scott, Foresman Reading. Glenview : Illinois, Scott, Foresman and Co. 1981.

Clymer Theodore et. al. " Measure Me, Sky," level 11.

Ginn 720. New York : Ginn and Co., 1979.

The three aspects addressed in these texts were readability, the cultural relevance of the content of illustrations and of the reading material.

Following are details regarding the cultural revelance of content of illustrations and reading materials. The development of cloze tests and the measurement of the readability of these two texts will be addressed in other sections.

Table 4 lists eight criteria used to describe and assess the cultural relevance of both illustrations and content of reading materials of the two texts and notes the particular cultural concerns of each criterion phrased as questions to be answered.

The two books were analysed separately and a description developed according to each of eight criteria. Then evaluative comments were made to address the particular concerns.

Development and Administration of Cloze Tests. The cloze technique was recommended in the Bahamian National Curriculum and was used to find out the reading levels of

Table 4

CRITERIA USED IN ASSESSING THE CULTURAL RELEVANCE OF THE ILLUSTRATIONS AND OF THE CONTENT OF THE READING MATERIALS

Criteria	Cultural Concerns of illustrations and content of Reading Materials.
1. Male/Female roles	Are there equal numbers of roles for both male and female or does one sex dominate? Are there equal numbers of main characters, male and female?
2. Elderly	Are the roles of the elderly portrayed negatively or stereotyped?
3. Minority groups	Are they presented in the text, and to what extent? How are they portrayed (negatively or positively)? Are people in minority groups chosen as main or supporting characters?
4. Homes	How do the homes differ in architectural style, colour, etc.?
5. Customs	Are there differences in the traditions of dress and features?
6. History	Are the historical stories relevant to the Bahamian children?
7. Climate	Are features of the tropical climate depicted?
8. Language	What aspects of language (eg. spelling, idioms) are not of relevance to the Bahamian culture?

the students relative to the two reading texts. The passages were prepared according to the following principle: the first and last sentences in each passage was left intact, and starting with the beginning of the second sentence every fifth word was deleted until the end of the sentence next to the last. Fifty five deletions were made for each passage of approximately 275 words (Appendix C). The cloze tests for

each passage and each basal reader were scored according to the conventional 'number correct' response method. That is to say, one point was given for each completion which agreed with the word deleted from the original passage (spelling errors were disregarded). The total number of correct responses by a pupil indicated the difficulty level of the passage for that child. For example, a pupil scoring a minimum of 33 words, or having 61% of the words correct would be at the independent reading level in that passage. That is, the child would not need help from a teacher or other person. The pupil scoring 22-32 words correct would be reading at the instructional level which would be the level at which the students would need help. The pupil scoring 22 or less, would be at the frustration level in that passage, the level at which the material would be too difficult even with the help of a teacher.

A sample of 176 good, average and below average grade six readers was chosen by the teachers on the bases of their own work with their students. These students were from 30 New Providence and Family Island Schools. Each student was given one cloze readability passage from one of the two basal readers. After the tests were scored a statistical analysis giving the mean,a frequency distribution, a standard deviation and a t-test for differences in the mean were obtained for each cloze passage.

Readability of the passages. The readability of passages in each of the two books was completed using the

Flesch Reading Ease Formula. One passage was chosen from each of the first, second and third parts of the books, six passages in all. Each was approximately 275 words and was the same selection from which the cloze passages were derived.

Three 100-word samples from these three 275 word passages were chosen from each of the two books.

The Flesch Reading Ease Formula was used to calculate the readability level of each of the six 100 word passages. The three reading ease scores for each book were then averaged to find the over-all readability of that book.

This researcher then used the Flesch transformation table to interpret the score in terms of a reading level in years.

Then the readability level of the basal readers was compared with the reading achievement level of the students on the cloze tests.

B. Teacher and Student Samples

Sixty one primary schools through-out the Bahamas taught grade six and of these forty two schools were sent one set of criteria for one grade six teacher to rate. Seven islands were considered too remote to include in the study.

Each of the 42 teachers was asked to have six students in the class complete one of the six cloze tests. The teachers were asked to choose two good readers, two average readers and two below average readers, totalling 252

students of 42 teachers. Details of these samples are reported in the next chapter.

C. Data Analyses

Research question 1 was, How do Bahamian grade six public school teachers rate a set of eight selected criteria considered important in selecting and adopting a basal reading programme?

To answer this question the teachers rated each sub-part of the eight criteria on a scale of 1 to 5. The teachers' ratings were averaged for each of these parts and a standard deviation computed. From these mean ratings the rank ordering was determined and the results discussed. The data were punched on cards and all statistical calculations were carried out by means of the SPSSX statistical program package (1983 version).

Research question 2A was, How does the readability level of the basal readers compare with the readability achievement level of the Bahamian grade six child ?

The readability level of three 100 - word passages from each of the two texts was calculated using the Flesch Reading Ease Formula and then averaged to find the overall readability of the books expressed by grade level.

The reading achievement level of the students was calculated from their scores on the cloze tests developed from passages of 275 words approximately. These passages contained the 100-word passages to compute the readability

levels of the passages. The reading achievement levels were expressed as independent, instructional or frustrational.

Then the readability level of the texts was compared to the readability achievement level of the students. The reasoning was that a grade six student should be reading material assessed to be grade six difficulty at either the instructional or the independent reading levels.

Research questions 2B and 2C were: To what extent are the illustrations in the basal readers appropriate and relevant to the child's cultural background? And to what extent are the reading materials appropriate and relevant to the culture of the child?

Eight criteria to be used in assessing the cultural relevance of both the illustrations and content of the reading materials were chosen and a number of cultural concerns in each criterion phrased as questions. The two reading texts were then analysed to answer the questions. The answers to these questions enabled the researcher to answer research questions 2B and 2C.

Chapter V

FINDINGS OF THE STUDY

A. Introduction

In this chapter the findings of the study will be presented and discussed. Following a description of the sample of teachers and their students, the rating of the eight criteria for the selection and adoption of basal readers by the teachers will be presented. Then the readability levels of the texts and the students' performances on the cloze tests will be reported. Lastly, the answers to the questions on the cultural relevance of illustrations and the content of the reading materials will be stated. All findings will be discussed by chapter section.

B. Teacher and Student Samples

Forty-two primary schools in the Bahamas were each sent one set of criteria for teachers to rate in order of importance to them and six cloze tests for the teachers to administer to their students. Thirty schools responded, returning the cloze tests of their six students except two teachers who returned eight tests instead of 12. A total of 176 cloze tests were completed. Also, only 28 teachers rated the criteria. Two did not complete the task. Table 5 reports the school locations of the teachers and their students.

TABLE 5

LOCATION OF TEACHERS AND STUDENTS IN SAMPLE

School Location	Number of Schools	Number of Teachers	Number of Students
Abaco	1	1	6
Andros	3	3	18
Grand Bahama	2	2	12
Harbour Island	1	0	5
Long Island	2	2	11
Nassau-N.P.	20	19	118
Spanish Wells	1	1	6
	N=30	28	176

Although there are 700 islands in the Bahamas only 30 are inhabited and of these 30 only 23 have schools. On the other seven islands Bahamians who work there locate their families on islands where there are schools. Of the 23 islands having schools, seven were considered too isolated for this study. Of 42 schools on the 16 islands that were contacted 30 schools on seven islands responded. The remaining nine of the 16 islands not responding was due to lack of adequate mail service.

The 30 schools responding were located on seven islands on which most of the population lives.

Approximately 70% of the primary school population is concentrated in Nassau alone and so it is appropriate that 20 of the 30 schools responding in this study were in Nassau.

On the other hand, islands such as Harbour Island and Spanish Wells have only one school and both participated in this study.

The sample of 28 teachers who rated the set of criteria is described in Table 6.

TABLE 6

SEX AND TEACHING EXPERIENCE OF TEACHERS IN SAMPLE

Sex	Number of Teachers	Teaching Experience in Years			
		0-5	6-10	11-15	16+
M	7	2	4	1	0
F	21	3	4	4	10
	N=28	5	8	5	10

Discussion: Out of a total of 28 teachers rating the sub-parts of the eight criteria the majority were females; 21 or 75% of the total, with almost half of these teachers having over 16 years teaching experience. Only three of the female teachers had five years or less experience. Seven teachers or 25% of the total were males, none of them having more than 15 years teaching experience. A point of note is that in the Bahamas males tend to shy away from teaching in the primary school and prefer teaching at the junior and senior high school levels. The teaching profession as a whole in the Bahamas is dominated by women. This phenomenon is projected in this sample. Table 7 presents data on the age, by sex, of the children participating in the study.

Discussion: For passage one of the Scott, Foresman text, 15 boys completed the task. Their mean age was 11.39. Fourteen girls also completed the passage and their mean age

TABLE 7

DISTRIBUTION OF THE MEAN AGE OF STUDENTS BY SEX FOR EACH CLOZE PASSAGE

Sex	Passages	Mean Age	No. of Students
	Scott Foresman		
Boys	S1*	11.39	15
	S2	11.27	13
	S3	11.72	13
Girls	S1	11.14	14
	S2	11.09	15
	S3	11.16	16
	Ginn Passages		
Boys	G1	11.64	10
	G2**	11.29	10
	G3	11.51	9
Girls	G1	11.06	18
	G2	11.64	19
	G3	11.24	21
Mean for both sexes		11.33	173
Mean for boys		11.47	70
Mean for girls		11.23	103

* - Passage from first third of Scott, Foresman reader
** - Passage from second third of Ginn reader

was 11.15. Thirteen boys completed passage two of the Scott, Foresman text with a mean age of 11.28, while 15 girls completed the same passage with a mean age of 11.09. The third passage in the Scott, Foresman text was completed by 13 boys whose mean age was 11.72 and by 16 girls with a mean age of 11.16.

Passage one from the Ginn text was completed by ten boys with a mean age of 11.64, and by 18 girls with an average age of 11.06. The second passage from the Ginn text was completed by ten boys with a mean age of 11.29, while 19

girls completed the task with a mean age of 11.64. The third passage from the Ginn reader was completed by nine boys, with a mean age of 11.52. A total of 21 girls completed the same task and their mean age was 11.25. The mean age for the entire population was 11.33. For the boys the mean age was 11.47 and for the girls 11.24. It should be noted, however, that these means account for only 173 students as the ages were not available for three students out of the total of 176.

An analysis of variance revealed that there was no significant difference (P>.05) between the ages of the boys and the girls completing the cloze passages. A summary of this information is presented in Table 8.

TABLE 8

ANALYSIS-OF-VARIANCE OF STUDENTS' AGES BY SEX

Source	Degrees of Freedom	Sum of Squares	Mean Square	F
Between groups	1	2.3126	2.3126	5.0552
Within groups	171	78.2289	.4575*	
Total	172	80.5415		

* no significant difference
P>.05
P>.001

C. Rating of Criteria by Teachers

Twenty-eight of the 30 questionnaires were returned. Of these 26 were fully completed and two were only partially completed. Two were not returned by the participating

teachers. Table 9 summarizes the teachers' mean rating for each of the eight criteria and for each sub-part.

D. Additional Criteria from the Teachers

In addition to rating these 8 criteria the teachers were requested to add any other criteria for selecting textbooks that they considered to be important. Five such criteria were listed. These are presented below; as stated by the teachers:

1. The cultural difference within an island community, especially ethnic/rural/city culture.
2. Availability of total material to be used in programme.
3. Adaptable so as to carry extras for slower or brighter pupils.
4. Emphasis should be placed on all aspects of word attack skills and all phases of reading. The teacher must also recognize the significance of following procedures used in the basal series approach.
5. Even though I have circled 4 in Suitability in the Nature of the Learner I feel that culture should play an important role in the selection of reading material, also in the early or beginning grades in the Primary schools pictures and words should be from the children's environment and not foreign.

TABLE 9

TEACHERS' RATINGS OF CRITERIA FOR SELECTING BASAL READERS

Criteria To Consider When Selecting Basal Readers	Mean rating of Criteria	STD DEV
1. Suitability of the nature of the learner	4.207	
(a) Maturity of the student - age and grade.	4.259	1.196
(b) Social, culture, economic, religious background.	3.630	1.149
(c) Need for specific knowledge, skill development.	4.731	.452
2. "Teachability" of the book or learning material for the teacher	4.479	
(a) Familiarity to teachers, reputation of the book.	4.000	1.166
(b) Availability of teachers' guides.	4.407	.917
(c) Suitability for enhancing student knowledge, skill, affect.	4.778	.424
(d) Appropriateness for encouraging student interest.	4.731	.452
3. Appropriateness of the content	3.752	
(a) Balance between contemporary and classical selections.	3.704	.669
(b) School policy based on ministry mandate.	3.800	.816
4. Physical format of book or learning material	3.953	
(a) Durability of binding.	4.370	.688
(b) Appropriateness of layout and use of illustrations.	4.571	.742
(c) Size and legibility of print.	4.630	.565
(d) Quality of paper.	3.704	.993
(e) Cover design.	2.963	1.091
(f) Convenience of size of book or materials.	3.481	.643

TABLE 9 (cont')

Criteria To Consider When Selecting Basal Readers	Mean rating of Criteria	STD DEV
5. Literary merit	4.012	
(a) Thematic concerns reflecting universal and particular applications.	4.000	.693
(b) Depth, scope, variety of characterizations, plot and setting.	4.037	.759
(c) Masterful control of direction and style.	4.000	.800
6. "Teachability" of the book or learning material for the student	4.587	
(a) Readability of work, degree of difficulty of vocabulary.	4.615	.496
(b) Appeal of subject matter, motivational value.	4.741	.526
(c) Complexity of sentence structure.	4.407	.747
7. Moral and philosophical viewpoint	4.293	
(a) Opportunity for suitable vicarious experience.	4.167	.761
(b) Avoidance of undue emphasis on sex and violence.	4.037	1.076
(c) Acceptable treatments of issues relating to race, colour, and creed.	4.192	.939
(d) Contribution to the development of positive attitudes, values and morals.	4.778	.577
8. Curriculum gestalt	4.500	
(a) Contribution to "total" design for grade 1-6 curriculum.	4.577	.857
(b) Importance of the book or learning material within the particular curriculum.	4.423	.758

* Maximum rating 5.000

E. Breakdown of Individual Criteria Rating

In contrast to the previous table which reported the mean ratings of the criteria by the teachers as a group, the next series of eight tables will show the mean ratings of individual teachers. These tables are presented primarily to report the exact number of teachers rating each criterion and the frequency distribution of the ratings. The mean rating refers to the mean derived from each teacher's rating of the sub-parts of the criteria. Any one teacher could rate 1a, 1b and 1c, for example, differently. The mean rating is the average of these different ratings within each criterion.

TABLE 10

CRITERION #1 - SUITABILITY OF THE NATURE OF THE LEARNER

Mean Rating*	Frequency	%	Cumulative Percentage
2.33	1	4.0	4.0
2.67	1	4.0	8.0
3.00	1	4.0	12.0
3.67	1	4.0	16.0
4.00	6	24.0	40.0
4.33	7	28.0	68.0
4.67	7	28.0	96.0
5.00	1	4.0	100.0
	N=25		

* Maximum mean rating 5.000

Twenty-five teachers rated this criterion. Twenty-one indicated that this criterion was important in textbook selection by rating it 4.0 or higher.

TABLE 11

CRITERION #2 - TEACHABILITY OF THE LEARNING MATERIAL FOR THE TEACHER

Mean Rating	Frequency	%	Cumulative Percentage
3.00	1	3.6	3.8
3.50	1	3.6	7.7
3.75	2	7.1	15.4
4.25	3	10.7	26.9
4.50	8	28.6	37.7
4.75	6	21.4	80.8
5.00	5	17.9	100.0
	N=26		

Twenty-six teachers rated this criterion. Nineteen considered this criterion to be very important when selecting textbooks, by rating it 4.5 or higher.

TABLE 12

CRITERION #3 - APPROPRIATENESS OF THE CONTENT (MINISTRY POLICY)

Mean Rating	Frequency	%	Cumulative Percentage
2.50	1	4.2	4.2
3.00	3	12.5	16.7
3.50	10	41.7	58.3
4.00	6	25.0	83.3
4.50	4	16.7	100.0
	N=24		

Twenty-four teachers responded to this item. Reaction to this criterion was very mixed. Ratings ranged from 2.5 to 4.5 which suggests that overall the teachers did not consider this criterion very important in textbook selection.

TABLE 13

CRITERION #4 - PHYSICAL FORMAT OF BOOK OR LEARNING MATERIAL

Mean Rating	Frequency	%	Cumulative Percentage
2.67	1	3.7	3.7
3.17	1	3.7	7.4
3.33	1	3.7	11.1
3.50	1	3.7	14.8
3.67	5	18.5	33.3
3.83	4	14.8	48.1
4.00	1	3.7	51.9
4.17	6	22.2	74.1
4.33	3	11.1	85.2
4.50	2	7.4	92.6
4.67	2	7.4	100.0
	N=27		

Twenty-seven teachers responded to this criterion. The ratings were widely distributed from 2.67 to 4.67. This suggests that overall the teachers did not consider this criterion to be of particular importance in textbook selection.

TABLE 14

CRITERION #5 - LITERARY MERIT

Mean Rating	Frequency	%	Cumulative Percentage
2.33	1	4.0	4.0
3.00	2	8.0	12.0
3.33	2	8.0	20.0
3.67	3	12.0	32.0
4.00	7	28.0	60.0
4.33	4	16.0	76.0
4.67	5	20.0	96.0
5.00	1	4.0	100.0
	N=25		

Twenty-five teachers completed this section of the questionnaire. Reaction to this criterion was varied, ratings ranging from 2.33 to 5.00. Seventeen teachers rated this four or more which suggested that they considered it important. Eight teachers rated it below four.

TABLE 15

CRITERION #6 - TEACHABILITY OF THE BOOK OR MATERIAL FOR THE STUDENT

Mean Rating	Frequency	%	Cumulative Percentage
3.67	3	11.5	11.5
4.00	1	3.8	15.4
4.33	6	23.1	38.5
4.67	6	23.1	61.5
5.00	10	38.5	100.0
	N=26		

Twenty-six teachers responded to this criterion. Twenty-three teachers rated this item as being important (over 4.0). Ten teachers gave this criterion the maximum rating, suggesting that it was a very important criterion for them in textbook selection.

Table 16 reports the teachers' ratings of criterion #7. Twenty-two teachers rated this criterion. Twenty teachers rated the criterion four or more, indicating that this is an important aspect of textbook selection.

TABLE 16

CRITERION #7 - MORAL AND PHILOSOPHICAL VIEWPOINT

Mean Rating	Frequency	%	Cumulative Percentage
3.25	1	4.5	4.5
3.50	1	4.5	9.1
4.00	4	18.2	27.3
4.25	7	31.8	59.1
4.50	3	13.6	72.7
4.75	4	18.2	90.9
5.00	2	9.1	100.0
	N=22		

TABLE 17

CRITERION #8 - CURRICULUM GESTALT

Mean Rating	Frequency	%	Cumulative Percentage
2.50	1	4.0	4.0
3.50	2	8.0	12.0
4.00	5	20.0	32.0
4.50	5	20.0	52.0
5.00	12	48.0	100.0
	N=25		

Twenty-five teachers rated this criterion and 12 teachers gave maximum rating to this criterion. Seventeen teachers rated it 4.5 or more, suggesting that this was very important to them in textbook selection.

Table 18 indicated that out of the total of eight criteria rated by the teachers the sixth criterion was considered the most important. Out of a maximum rating of 5.000 this received a mean rating of 4.587. This criterion was concerned with the teachability of the learning material

for the student, one aspect of which is readability which is being addressed in this study.

TABLE 18

RANK ORDERING OF THE SET OF EIGHT CRITERIA AS RATED BY THE TEACHERS

Rank Order High to Low	Criteria	Mean Rating
1	6 (Teachability of students)	4.587
2	8 (Curriculum gestalt)	4.500
3	2 (Teachability .. teacher)	4.479
4	7 (Moral ... viewpoint)	4.293
5	1 (Suitability ... learner)	4.207
6	5 (Literary merit)	4.012
7	4 (Physical format)	3.953
8	3 (Appropriateness ... content)	3.752

Criterion number eight received the second highest mean rating, 4.500 out of a maximum of 5.000. The teachers in this study acknowledged the importance of the curriculum gestalt in selecting and adopting basal readers.

The physical format, the number four criterion, and the appropriateness of the content, the number three criterion, received the lowest means out of the set of eight criteria, 3.953 and 3.752 respectively. However, it should be noted that both these means were relatively high, rating almost four out of five.

Discussion: The number six criterion, "teachability" of the book or learning material for the student, was rated the highest by the teachers. This shows that the teachers had concerns in mind about the children who will have to use the material they are selecting. The criterion included the

readability of the work and the degrees of difficulty of the vocabulary, the appeal of the subject matter and its motivational value, and the complexity of the sentence structures. This criterion included two of the major focusses of this study; the readability of the text and the appeal of the subject matter (cultural relevance).

Ranking second was the eighth criterion, curriculum gestalt. This includes the contribution to the total design for the grade 1-6 curriculum, and the importance of the book within the particular grade level curriculum. This indicated that the teachers were concerned about the contribution of the text to the school curriculum as a whole.

The teachability of the materials (criterion number two) was ranked third. Criterion number seven, moral and philosophical viewpoint, ranked relatively high (number four). This criterion included acceptable treatment of issues relating to race, colour and creed and contribution to the development of positive attitudes, values and morals. This criterion was directly associated with the examination of the cultural content of the material and the illustrations which is a part of this study.

While criterion four, physical format of the book or learning material, and criterion three, appropriateness of the content, were ranked seventh and eighth respectively, they were still rated relatively high receiving an overall rating of almost four out of five. This indicated that the teachers acknowledged the importance of these two areas, but

certain sub-parts of these two criteria ((e) cover design and (f) convenience of size of book) received low ratings and thus lowered the mean for the criteria as a whole. Sub-part4(b), appropriateness of the layout and use of illustrations, ranked as being very important (mean rating 4.571) and was an area addressed in this study.

Table 19 shows the mean ratings of the sub-parts of the set of criteria and the rank ordering of the same. Sub-criteria 2C and 7D suitability for enhancing student knowledge ... and contribution to the development of positive attitudes, were ranked the highest out of a total of 27 sub-parts. They both received mean ratings of 4.778 out of 5.000. Six B, appeal of subject matter and motivational value, ranked third, with a mean rating of 4.741. Sub-parts 1C and 2D, need for specific knowledge, skill, effect and appropriateness for encouraging student interest. received equal ratings which were very high. Both rated 4.731 out of 5.000. Sub-parts 6C, complexity of sentence structure, which is a part of assessing readability, ranked eleventh.

Out of the total of 27 sub-parts, only one part was rated below 3.000. This was 4E, cover design, which received 2.963 out of a maximum of 5.000.

Discussion: Table 19 shows that 2C, suitability for enhancing student knowledge, skill, and affect, and 7D, contribution to the development of positive attitudes, values and morals were ranked the highest. This indicated

TABLE 19

RANK ORDERING OF SUB-PARTS OF CRITERIA

Criteria of Sub-Parts	Mean Rating	Rank Ordering
2C	4.778	1
7D	4.778	1
6B	4.741	3
2C	4.731	4
4D	4.731	4
6C	4.630	6
8A	4.615	7
4A	4.577	8
8B	4.571	9
8B	4.423	10
2B	4.407	11
6C	4.407	11
4A	4.370	13
1A	4.259	14
7C	4.192	15
7A	4.167	16
5B	4.037	17
7B	4.037	17
2A	4.000	19
5A	4.000	19
5C	4.000	19
3B	3.800	22
3A	3.704	23
4D	3.704	23
1B	3.630	25
4F	3.481	26
4E	2.961	27

that the teachers were concerned that their students develop knowledge and skills as well as positive attitudes and values.

Developing knowledge and skills depend in part, upon the suitability of the text for the learner. The second part of this study examined the readability level of two of the sixth grade reading texts and the reading achievement levels of the student.

Encouraging positive attitudes, values and morals (7D) is directly associated with the relevance of the cultural content of both the text and illustrations and was the focus of the third part of this study.

The third ranked sub-part was 6B, appeal of subject matter and motivational value. Again, this is in part directly associated with the cultural content of texts and illustrations, for, in order to be motivated to read children must be able to relate to the content and identify with it.

Among the lowest ranked sub-parts was number 1B which was ranked twenty-fifth. This sub-part deals with the social, cultural, economic and religious background of the learner. The teachers appeared to be concerned about the children in their responses to other sub-parts, such as 2C (suitability for enhancing student knowledge, skill, affect), 7D (contribution to th development of positive attitudes, values and morals) and 2D (appropriateness for encouraging student interest) and so they could have misinterpreted this item. This could be an issue worthy of further research. Did the teachers rate this item low because they felt that a child's family, economic background, religion etc. was not to be considered when teaching as they should not be causes for bias against a child? Or is it a cultural attitude because Bahamians regard themselves simply as Bahamians, regardless of colour, religion or ethnic heritage? Another possibility is that the

teachers believed it was unfair to condemn an American text book for not reflecting the Bahamian way of life. They may have considered the task of cultural relevancy their own responsibility, and therefore rated the item low in importance.

Sub-parts 4E and 4F were rated the lowest of all, twenty-sixth and twenty-seventh. These referred to the convenience of the size of the book and the cover design. Yet sub-parts 4B and 4C (appropriateness of lay-out and use of illustrations and size and legibility of print) were ranked fairly high (ninth and sixth respectively).

These are related to readability and cultural content, as examined in this study. Sub-part 2D (appropriateness for encouraging student interest) is also ranked fairly high (fourth out of 27). This is also related to readability and cultural content.

F. Readability Level Of The Texts

Table 20 indicated that passage one, selected from the first third of the Scott, Foresman text, was estimated to be at a sixth grade level which is equivalent to the Bahamian grade seven. The second passage chosen from the second half of the text was at the Bahamian grade six level, but it should be especially noted that passage 3, taken from the third section of the book, was estimated to have a seventh grade readability level (equivalent to eighth grade in the Bahamas). This passage would therefore be approximately two

reading grade levels above the Bahamian child.

TABLE 20

SUMMARY OF GRADE LEVEL AND READING AGE FOR THE THREE PASSAGES IN EACH TEXT BOOK ACCORDING TO FLESCH READING EASE FORMULA

Books	Passage	Flesch Reading Ease Score Range	Flesch Reading Ease Score For Each Passage	Est. Grade Level	Estimated Read Level	Average Student Age
Scott, Foresman	1	80-90	80·05	6	11 yrs	11.3 yrs
	2	90-100	96·20	5*	10 yrs	11.2 yrs
	3	70-80	78·85	7	12 yrs	11.4 yrs
Ginn	1	90-100	93·47	5	10 yrs	11.3 yrs
	2	80-90	87·71	6	11 yrs	11.5 yrs
	3	80-90	84·60	6	11 yrs	11.3 yrs

* Grade equivalent = 6th grade (Bahamian)

G. Reading Achievement Levels Of The Students According To Cloze Tests

Table 21 provides a summary of the students' performance on the three cloze passages selected from each of "Sky Climbers" Scott, Foresman Series Level 10 and Ginn 720 series, "Measure Me, Sky" Level II.

From the data presented in Table 21 it can be seen that very few children performed at the independent reading level on either text (only 35 out of 176). On the other hand, 69 children performed at the frustration reading level, with only 62 at the instructional reading level, and 53% of these in the lower range of that level. This indicated that the material in both books was too difficult for at least 39% of

TABLE 21

STUDENTS SCORES ON CLOZE PASSAGES

Book	Cloze Passage	Frustration Level 0-11	Frustration Level 12-21	Instructional Level 22-27	Instructional Level 28-32	Independent Level 34-44	Independent Level 45-55
Scott Foresman	1	3	9	10	6	1	0
	2	1	3	3	7	15	0
	3	13	11	4	0	1	0
Ginn	1	3	7	4	8	8	0
	2	10	10	7	2	0	0
	3	2	7	5	6	10	0
Total		32	47	33	29	35	0

the children using them as they were all reading at their frustration level.

Table 22 presents the number of children at each reading level in the three passages from the Scott, Foresman text. Passage two appeared to be at the appropriate level for most of the students. Only four students found this passage to be at their frustration level (i.e. below their comprehension level). This however, was not the case for the first and third passages. These passages seemed to be well above the comprehension level of most of the students. In passage one 12 out of 29 students were at their frustration level. Sixteen students were at the instructional level and only one at the independent level. In passage three, 24 students were at the frustration level, four at the instructional level and only one at the independent level.

TABLE 22

SUMMARY OF CLOZE READING SCORES FOR THE SCOTT, FORESMAN 'SKY CLIMBERS' LEVEL 10 PASSAGES

LEVELS OF READING ACHIEVEMENT	NO. OF STUDENTS PASSAGES 1	2	3	TOTAL
Frustration*	12	4	24	40
Instructional	16	10	4	30
Independent	1	15	1	17
				N = 87

Frustration level-scored <22 (0-40% correct)
Instructional level-scored 22-32 (41-60% correct)
Independent level-scored 33-55 (61-100% correct)

Discussion: In total 46% percent of the students were at the frustration level with the passages from this book. In other words, 40 students out of 87 were not able to comprehend the material and therefore would need the constant assistance of the teacher. On the other hand, 30 students out of 87 would be able to comprehend the material with some instruction from the teacher, while 17 students would not need the teacher's assistance at all. They would be able to work independently.

In table 23 the results for the cloze reading achievement tests for the three passages on the Ginn "Measure Me, Sky" are presented. The students on these passages are more evenly spread in terms of reading ability. The most difficult passage in the Ginn 720 was passage two

where no students performed at the independent level. Twenty students however, out of the 29, were at their frustration level. Passages one and three were more appropriate to the students' reading levels although ten and nine students respectively were at their frustration level and only eight and ten respectively were reading at the independent level.

TABLE 23

SUMMARY OF CLOZE READING SCORES FOR THE GINN 720 'MEASURE ME, SKY' LEVEL 11 PASSAGES

LEVELS	NO. OF STUDENTS PASSAGES 1	2	3	TOTAL
Frustration*	10	20	9	39
Instructional	12	9	11	32
Independent	8	0	10	18
				N = 78

* Frustration level-scored <22 (0-40% correct)
Instructional level-scored 22-32 (41-60% correct)
Independent level-scored 33-35 (61-100% correct)

Discussion: Passages one and two appeared to be of moderate difficulty for these students, but the results for passage two indicate that this was beyond their reading comprehension; only nine out of the 29 students were at their instructional reading level and none at the independent level. Overall the results from the Ginn 720 show that 39 out of 78 students were at the frustration reading level in this text. This is 50% of the students working in this text.

Table 24 indicates that the mean cloze score for the whole group was 22.127, suggesting that the book was barely at the students' instructional level. However, when examining the results for the males it was found that the mean was 21.951, which is at the frustration level, indicating that on an average the boys found the book to be at their frustration reading level. The mean for the girls was 22.978 which indicated that the book was, on average, at their instructional level. However, a t-test was performed to examine this perceived difference. The results as shown in Table 24 revealed that the difference between the boys and the girls in the Scott, Foresman text was not significant ($p>.05$).

TABLE 24

t-test SUMMARY OF THE READING ACHIEVEMENT LEVEL OF BOTH SEXES ON SCOTT, FORESMAN 'SKY CLIMBERS'

SEX	MEAN	S.D	F	T	P
Both sexes	22.127	10.64			
Boys	21.195	10.257	1.16	-0.78	0.440*
Girls	22.978	11.032			

* Not significant P>.05 df=84

Like the Scott, Foresman, the average boy seemed to find the Ginn "Measure Me, Sky" at his frustration level with a mean reading level of 18.733, while the average girl found the book at her instructional level. Once again a t-test was performed to examine the mean difference between the sexes. The results as revealed in Table 25 suggest that

the difference was significant between the boys' and girls' reading achievement levels of the Ginn "Measure Me, Sky".

TABLE 25

t-test SUMMARY OF THE READING ACHIEVEMENT LEVEL OF BOTH SEXES ON GINN 'MEASURE ME, SKY'

SEX	MEAN	S.D	F	T	P
Both sexes	22.75	10.55			
Boys	18.733	11.101	1.31	-2.66	0.014*
Girls	24.827	9.714			

* Significant difference P<.05

This was not the case in the Scott, Foresman "Sky Climbers" book. In spite of these apparent differences, a t-test as shown in Table 26 revealed that no overall significant difference existed between the sexes when the passages from both books were analyzed together.

TABLE 26

t-test SUMMARY OF THE MEAN READING ACHIEVEMENT LEVELS FROM BOTH TEXTBOOKS

BOOKS	MEAN	S.D	F	T	P
Ginn	22.719	10.496	1.03	0.44	0.658*
Scott, Foresman	22.011	10.638			

* No significant difference .05 level

H. Relationship of Readability and Reading Achievement Levels

According to the Flesch Reading Ease Formula, the Scott, Foresman text averaged one grade level above Bahamian sixth grade. However, the three passages selected were at the sixth, fifth and seventh grades respectively. This is reflected in the results of the cloze reading tests completed on these passages by the students. On the passage at the fifth grade level (S2) 15 out of the 29 students were reading at their independent level. This passage at the fifth grade level is the equivalent of the Bahamian sixth grade level. On passage one and three which are at the sixth and seventh grade levels respectively, according to the Flesch Reading Ease Formula, the children scored much lower on the cloze tests. Only one student completing passage one (sixth grade level) was reading at the independent level and 16 were reading at the instructional reading level. Only one student completing passage three (seventh grade level) performed at the independent reading level, while 24 of the twenty nine students were at the frustration level.

The three passages selected from the Ginn 720 text again averaged almost one grade level higher than the Bahamian equivalent. Passage one was at the fifth grade level, passage two at the sixth grade level and passage three also at the sixth grade level. The cloze test results for these passages showed passage number two (sixth grade level) to have been the most difficult for the students. In

this passage no student performed at the independent level. On passages one and three, even though passage three is at the sixth grade level, eight and 10 students respectively were reading at the independent level. Also on these two passages only ten and nine students respectively were performing at the frustration level.

Overall, although neither book was at the reading level of the sixth grade Bahamian children in the study (each being one grade level higher), the Ginn 720 appeared to be closer to the children's average reading level than the Scott, Foresman text.

I. Cultural Relevance Of Illustrations And Content of Reading Material

Scott, Foresman Text - Illustrations

Table 27 indicates that out of a total of 294 illustrations in the Scott, Foresman "Sky Climbers" text, 88 or 29.93% of the illustrations did not include people. The majority of the illustrations (160 or 54.42%) were paintings. The second highest category was photographs with a total of 79 or 26.87%. Twenty of the illustrations or 6.80% were diagrams, eight were maps and seven were cartoons.

Portrayal of male/female roles: Out of a total of 206 illustrations that included people 70 or 33.98% portrayed males and females together. There were 84 or 40.77%

TABLE 27

NUMBERS OF ILLUSTRATIONS IN THE SCOTT, FORESMAN AND GINN TEXTS BY CATEGORIES

Books	Painting	Photographs	Diagrams	Maps	Cartoons	Drawings	Total Illustrations	Without People
Scott, Foresman "Sky Climbers"	160	79	20	8	7	20	294	88
Ginn 720 Measure Me Sky	159	52	-	-	2	22	235	72

depicting only males and 33 or 16.01% portraying only females. The males generally were the main characters and held the dominant position in the illustrations. Relatively few illustrations portrayed females in a leading role.

Portrayal of the Elderly: From a total of 206 illustrations 24 or 11.65% portrayed the elderly. Twenty-two out of these 24 or 91.66% portrayed the elderly in active, non-stereotypical roles. For example, an old man was a guest speaker at a school (pp. 311-317); one man was a dentist (P. 442), and another a marine-scientist (p. 344).

Only one old lady was portrayed. She was carrying a basket and walking with a little boy. There was one illustration showing an old man in a wheel-chair who was being assisted by a lady.

Portrayal of Minorities: Out of a total of 206 illustrations depicting people 59 or 28.64% portrayed

minorities. Most of the characters played leading roles as there was generally only one character in the illustration, or alternatively all the characters were minorities. When other racial groups were included the minority characters either played equal or supporting roles (eg. p. 317). In mixed groups they were not the main characters, but neither were they portrayed negatively.

Homes: Thirty-two or 10.88% of the overall total of 294 illustrations in the text depicted homes. They were American homes of the past e.g. homes of the farms, as well as from the present e.g. apartments. There were no homes depicted from other countries that were different from American style homes.

Customs, History and Climate: Although there were illustrations dealing with American history, they did not include any features that have not already been addressed. Customs and climate in the illustrations were totally American.

Discussion: From the total of 294 illustrations in the "Sky Climbers" Scott, Foresman text only 94 or 31.97% could be considered relevant to the Bahamian student. The remaining 200 illustrations or 68.02% would be difficult for the Bahamian student to relate to. They included illustrations of the Oregon Trail, snowstorms and blizzards, and American farmland. There were however, 82 illustrations, or 39.80%, that included animals which would be universal in relevance, and 25 or 12.13% that depicted the sea which is

the environment most familiar to the Bahamian children. Thirteen of these illustrations included both animals and the sea.

Ginn 270 - Illustrations

In the Ginn text "Measure, Me Sky" there was a total of 235 illustrations. One hundred and fifty-nine or 67.6% of the total were paintings. Fifty-two or 22.1% of the total illustrations were photographs, and twenty-two or 9.4% were drawings. Diagrams and maps were not included. Seventy-two or 30.6% of all the illustrations in the text did not include people.

Portrayal of Males and Females: Out of a total of 211 paintings and photographs 92 or 43.6% portrayed people. Out of these 35 or 38% portrayed males and females together. Forty or 43.5% depicted just males while only 17 or 18.5% included just females. As with the Scott, Foresman text males generally dominated the illustrations. Very few illustrations were centred on a female character.

Portrayal of the Elderly: Nine or 4.26% of the total of 211 paintings and photographs in the "Measure, Me Sky" text portrayed the elderly. Eight of these portrayed them in active roles. For example, an old man was taking care of a young boy (pg. 87); a grandfather was lifting up a little girl (pg. 401), and an old lady was entertaining two girls and sharing her experiences as a child with them (pg. 105). Only one illustration portrayed the elderly in an inactive,

stereotypical way (pg. 428). In this one an old man was lying down and appeared to be asleep.

Minority groups: From a total of 211 paintings and photographs representing people 52 or 24.64% portrayed minorities. As with the Scott, Foresman text generally all the characters in the illustrations were of the same minority group. When a mixed group was presented the role of the minority character was either equal or supporting. A minority character was never shown in a leading role in a mixed group, and these characters were usually male. Very few female minority characters were depicted in the illustrations.

Homes: Out of a total of 235 illustrations in the "Measure Me, Sky" text seven or 2.97% depicted houses. These homes were typical of the homes of the past in America (pg. 165) and homes as they presently are, especially in the big cities, for example, apartments, hotels, etc. (pp. 84, 385).

Customs, History and Climate: American customs are not depicted in the Ginn illustrations, except for 11 paintings of American Indians. There are no historical illustrations except for the 11 of American Indians. There is, however, an emphasis on myths, fairy tales and folklore which is of universal appeal. From the illustrations specific climate is not apparent except for a few depicting winter snow scenes.

Discussion: Out of a total of 235 illustrations in the Ginn text only 65 or 27.7% could be considered relevant to

Bahamian children. One hundred and seventy or 72.3% were considered irrevelant to Bahamian culture. Of the 65 considered relevant 28 or 43.07% dealt with the water or sea and marine life, which is common to the Bahamian way of life. Nine or 3.84% out of the 65 depicted animals, which can be considered to have universal appeal and relevance.

Summary

In both of the texts the majority of the illustrations were considered irrelevant to the Bahamian culture. The majority of illustrations deemed relevant included illustrations of the sea, marine life or animals. Considering that the books were written for American students it is only fitting that the illustrations should portray American culture.

Scott, Foresman "Sky Climbers" - Content Of Reading Material

Out of a total of 48 story selections, 17 or 35.41% were considered relevant to the Bahamian child. For example, selections such as "Answering Hard Questions" (p. 311) and "From Magic Meadow" (p. 165) were considered "universal" because they dealt with themes such as children being hospitalized and in school situations. These could therefore be considered relevant to the Bahamian culture. Of the remaining 31 selections, nine or 29.03% included American history which have no relevance to Bahamian culture. For example, "Trail to Oregon" (p. 122) or "Sunday's Child"

(p. 99) would not be in the Bahamian child's experience, and therefore would have no relevance to him. Stories about snow and blizzards were also considered irrelevant to the Bahamian child.

The majority of the stories were very American, accounting for the low percentage of culturally relevant content for Bahamian students. Most of the stories regarded as relevant were stories about the sea or stories that included animals. These two aspects in particular are closely connected to the marine life and ecosystem of the Bahamas.

Scott, Foresman is an American series, hence the reason for the inclusion of American cultural content. The language is not likely to provide a problem for the students since they are exposed to it in school, and especially in textbooks.

Ginn 270 "Measure Me, Sky" - Content of Reading Material

In the "Measure Me, Sky" text 15 or 48.38% out of a total of 31 story selections were deemed relevant. Out of these 15 selections seven or 46.66% pertained to the sea or water, while six or 40% included animals. Two or 13.33% were fairy and folk tales. Sixteen selections or 51.6% were considered inappropriate or not relevant to the Bahamian culture. In the text "Sail Calypso" (p. 49) and "Fantastic Victory" (p. 64) were considered universal stories because they dealt with children handling boats and doing homework,

and therefore were included as being relevant to the Bahamian child. The Bahamas being a tourist destination, and with most of the tourists coming from North America, the language in the text is quite familiar to the Bahamian children.

Summary Discussion

The content of the Ginn text included more universal selections than the Scott, Foresman text, therefore resulting in more of the stories being culturally relevant to the Bahamian children, as the students would be able to identify with them. For this reason even though the Ginn text is an American series, it is more appropriate for the Bahamian culture than the Scott, Foresman text. One of the chief reasons is that there is much less emphasis placed on American history than in the Scott, Foresman text.

Chapter VI

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

A. Summary

The purpose of this study was to provide a rating of a set of criteria for text book selection by Bahamian teachers and to provide an exploratory and descriptive analysis of two basal readers recommended for use in the Bahamas by the Ministry of Education. These were: the Scott, Foresman "Sky Climbers" level 10 and the Ginn and Company Reading 720 "Measure Me, Sky" Level 11.

The research questions addressed in this study were:

1. How do Bahamian grade six public school teachers rate a set of eight selected criteria considered important in selecting and adopting a basal reading programme?
2. How well do the two basal readers in this study meet three aspects of these criteria:

2A. How does the readability level of the two basal readers compare with the reading achievement level of the Bahamian grade six child?

2B. To what extent are the illustrations in the basal readers appropriate and relevant to the childs' cultural background?

2C. To what extent are the reading materials appropriate and relevant to the culture of the child?

The procedure was carried out in four steps:

1. The rating of a set of eight criteria by 28 Bahamian teachers concerning relevancy in the selection and adoption of foreign texts to the Bahamian situation.
2. A descriptive and comparative analysis of two basal reading texts, addressing specifically readability, and the cultural relevance of illustrations and the content of reading material, to the grade six Bahamian child.
3. The readability level of each basal reading text was identified using the Flesch Reading Ease Formula.
4. Cloze tests from both basal reading texts were administered to 176 grade six Bahamian students to assess their reading achievement level, and a comparison was drawn between the students' reading achievement level and the readability level of the text.

The sample of 30 teachers was drawn from 30 different schools from seven islands of the Bahamas. The total of 176 children participating in the study were the grade six students of the thirty participating teachers.

In addressing question one, How do Bahamian grade six public school teachers rate a set of eight selected criteria considered important in selecting and adopting a basal reading programme?, the teachers rated highest the criterion that included readability of the text, the appeal of the subject matter and its motivational value, and the complexity of sentence structure. This included two of the major focusses of this study; the readability of the text and the appeal of the subject matter (cultural relevance of

illustrations and content of material). The second rated criterion was Curriculum gestalt which included the contribution of the text to the total grade 1-6 curriculum and the importance of the book within this paricular grade level curriculum. Rated last was appropriateness of the content, which included balance between contemporary and classical selections, and school policy based on ministry mandate.

Question 2A was, How well does the readability level of the two basal readers compare with the reading achievement level of the grade six Bahamian children ? Both books were found to be approximately one grade level above the reading level of the children in the study, although the Ginn 720 text was closer to the children's achievement level than the Scott, Foresman text.

Question 2B was, To what extent are the illustrations in the basal readers appropriate and relevant to the childs' cultural background? From a total of 294 illustrations in the "Sky Climbers" Scott, Foresman text only 94 or 31.97% could be considered relevant to the Bahamian student. The remaining 200 or 68.02% of the illustrations would be difficult for the Bahamian student to relate to.

Out of a total of 235 illustrations in the Ginn text "Measure Me, Sky" only 65 or 27.7% could be considered culturally relevant to Bahamian children. One hundred and seventy or 72.3% were considered irrelevant to Bahamian culture. Question 2C was, To what extent is the content of

the basal readers appropriate and relevant to the child's cultural background? In the Scott, Foresman "Sky Climbers" text much of the content was American in substance, and only 17 or 34.41% of the 48 selections were considered culturally relevant. On the other hand, the Ginn "Measure Me, Sky" text is also an American series, but 15 or 48.38% out of a total of 31 story selections were considered relevant.

B. Conclusions

As only five teachers wrote in extra criteria on the questionnaire the eight criteria provided were apparently well chosen and sufficient to address the concerns of the teachers in choosing texts. Two of the criteria written in were a reaffirmation of the need to attend to cultural relevancy in the material. From this study the teachers appeared to be concerned primarily with the teachability of the book including readability, appeal of subject matter and complexity of sentence structure, also, with the way the text fits into the reading curriculum of the Bahamas. The two criteria of least concern to the teachers were the physical format of the book, appropriateness of the content which was broken down into school policy based on ministry mandate, and balance of selections (classical and contemporary). As discussed in chapter five this is open to interpretation, but it appeared that the teachers felt that this was an issue over which they have little control, since they generally used foreign books and content decisions have

already been made.

Both texts, Scott, Foresman and Ginn, were too difficult for the children using them - approximately one grade level above the grade level of the students according to the Flesch Reading Ease formula. However, Ginn "Measure Me, Sky" was closer to the students' reading levels than the Scott, Foresman "Sky Climbers". From the results of the cloze test procedure it can be concluded that the books are beyond the reading level of almost half of the children in the study. Although 35 of the 176 children were performing at the independent reading level the remainder of the children would probably benefit from using a book one grade level lower. This means that a fourth grade level American book should be used with the majority of the Bahamian sixth grade children (fifth grade American being equivalent to sixth grade Bahamian).

The illustrations and content in both texts are largely irrelevant to the Bahamian culture and hence the texts are not entirely appropriate for Bahamian students.

C. Implications and Recommendations

1. The teachers in close contact with the children and the reading material had an awareness and sensitivity to the needs of the children, were aware of the content and reading difficulty of the books, and they should be listened to by those choosing reading texts for use in the school.

Recommendation: Those responsible for selecting reading

texts should listen to the teachers and the suggestions they make with regard to selecting and adopting reading texts.

Implication: Teachers in the Bahamas are not unduly impressed by the physical format of the book. The content of the book and its suitability to the learner is of greater concern to them than the balance of the selections or the cover design etc.

Implication: A move to decentralize the decision making in selecting and adopting reading texts would mean greater involvement of the teachers and would result in meeting the needs of the local children more effectively.

Recommendation: Those presently engaged in the selection and adoption of reading texts should take advantage of input from local teachers who work with the texts and the children on a day-to-day basis.

Implication:If the children are to progress in reading according to grade level they should be reading texts that are appropriate to their levels of achievement and cultural background. This is not to say that Bahamian children cannot achieve at levels equal to American children. American books are designed for American children in an American culture. Bahamian children reading American materials must first learn about the American way of life and then learn how to read about the American way of life. This puts a double burden on the Bahamian child. It then seems reasonable that the Bahamian child should use reading material a grade level below that presently recommended.

Recommendation: A. Assign American reading texts one level below that presently recommended in the Bahamian elementary school system.

B. Develop a set of resource material with Bahamian content that can be used as supplementary reading material along with the American text.

D. Suggestions for Further Research

1. A study should be undertaken to determine the teacher's perception of the educational needs of the students and the teaching materials that best meet those needs.
2. A resource source should be developed for each grade level to be inserted into the American texts which will provide culturally relevant reading materials and appropriate learning experiences to support that material. This must be accompanied by on-going research to determine the suitability of this material, and its effectiveness in promoting the reading achievement of the children.
3. Research could be carried out to establish a method of assessing the cultural relevance of the materials that would be appropriate to the Bahamian situation.
4. Examine the acceptability of using the cloze procedure as a means of assessing children's reading achievement. If it is to be used, ensure that the children are prepared for this task by the method of reading instruction used. For example, DRTA (Stauffer, 1969)

will prepare children to complete cloze passages much more effectively than some other approaches.

5. A study could be undertaken to develop a reading test, as an alternative to using cloze tests, that would establish Bahamian reading achievement norms. This would avoid the possibility of obtaining depressed reading scores through using American texts with Bahamian children.
6. Research could identify the preservice and inservice needs of the teachers so that all teachers are prepared to work effectively with American books.

E. Concluding Statement

A double burden is being placed on Bahamian children because they are learning to read through the use of a text developed for a foreign country (U.S.A.). They are required to understand the American way of life before they can learn to read American reading materials. They then have to relate this content to the Bahamian way of life. Anything that can be done to alleviate this double burden through teacher preparation, adaptation of reading content, adaptation of teaching methodology and adaptation of methods of reading assessment, will lessen this burden.

BIBLIOGRAPHY

Adams, S.C. Language of Grade 4, 5 and 6 Basal Readers. Unpublished Master's thesis, University of Alberta, 1979.

Alexander, J.E. et. al. Teaching Reading. New York: Little, Brown & Company, Inc., 1979.

Bamberger, Richard, Rabin, Annette, T. "New Approaches to Readability, Austrian Research," The Reading Teacher, February, 1984, 513-15.

Beck, Isabel L., McKeown, Margaret, McCaslin, Ellen S. "Does Reading Make Sense? Problems of Early Readers," The Reading Teacher, April, 1981, 781-84.

Blair, Heather. "Canadian Native peoples in adolescent literature." Journal of Reading, December 1982, 217-221.

Bluth, Linda F. "The Illustration-Comprehension Relationship: A Review of the Literature," Reading Improvement, Vol. 18, Fall, 1981, No. 3, 251-9.

Brimble, A. Ron. "A Guide to Selecting Reading Materials," Australian Journal of Reading, Vol. 4, No. 4, Nov., 1981, 173-95.

Cassie, J.R. and Styles. "Reviewing and Selecting Books and Learning Material for School use." Education Canada, Fall/1981.

Chall, J. Learning to Read. The Great Debate. New York, McCraw Hill Book Co., 1983.

Clymer, Theodore et. al. Measure Me, Sky, Level 11. Ginn 720, Rainbow edition. Canada. Ginn and company, 1979.

"Commonwealth of the Bahamas." In A Year Book of the Commonwealth. London: H.M.O.S. Books, 1984.

Concannon, Josephina, S. "Illustrations in Books for Children: Review of Research," The Reading Teacher, December, 1975, 254-57.

Donnelly, M. "Reading in the Content Area" - In J.E. - Alexander et. al., Teaching Reading. New York: Little, Brown & Co.Inc., 1979. pp. 222-250.

Downing, J. & Ollia, L. "Cultural Differences in Children's concepts of Reading and Writing," British Journal of Psychology, vol. 45, 1975, 312-16.

Durkin, Delores. "Reading Comprehension Instruction in Five Basal Reader Series," Reading Research Quarterly, No. 4, 1981, XV 14, 515-43.

_____. "Some Questions About Questionable Instructional Material," The Reading Teacher, October, 1974, 13-17.

Dwyer, F.M. Exploratory Studies in the Effectiveness of Visual Illustrations, University of Pennsylvania, 1969.

Edwards, V.K. "Effects of Dialects on the Comprehension of West Indian Children," Education Research, vol. 18, No. 2, 83-95.

Educational Development in an Archipelagic Nation - Report of a Review Team, The Commonwealth of the Bahamas, September, 1974.

EPIE. National Survey and Assessment of Materials 1974-75. Report No. 71, Spring, 1976.

Evans, R.C., Young, R.N. The Bahamas, Cambridge University

Press/Columbus Trinidad, 1976.

Farquharson, Verdie M. Teachers in the Bahamas. Unpublished Master's thesis, University of Alberta, 1979.

Finn, J.D. Professionalizing the Audio-Visual Field. AV Communication Review, 1953, 1, 6-17.

Gibson, J.J. A Theory of Pictorial Perception. AV Communication Review, 1954, 2, 2-23.

Hall, Nigel. "Characters in British Basal Series Don't Read Either," The Reading Teacher, Vol. 37(2), October, 1983, 22-25.

Henderson, Jennifer. "Two-level Reads - An Investigation," Australian Journal of Reading, Vol. 2, No. 3, August, 1979, 153-58.

Hitchcock, Cheryl. Analyses of Comprehension Questions. Unpublished Master's thesis, University of Alberta, 1983.

Howard, A.B. "Text Book Illustrations. A Visual Aid" Educational Screen, 1947, 26-28.

Jenkinson, Marion D. "Ways of teaching" (ed): Ralph C.Staiger, the Teaching of Reading. Unesco Source Books on Curricula and Methods, 1973, 39-59.

Kirkness, Verna. "Prejudice about Indians in Textbooks." Journal of Reading, April 1977, 595-600.

Klare, G. Assessing Readability. Reading Research Quarterly, No. 1, 1974-75, 62-98.

Koenke, K.R. The Efforts of a Content Relevant Picture. ___ paragraph. Technical Report, 1968. No. 56, University of

Wisconsin.

Lunzer, Eric & Gardner, Keith. The Effective Use of Reading, 1979. Heinenmann Educational Books ltd. 22 Bedford Square, London.

Marten, Laurel, Matlin, M. "Does sexism in elementary readers still exist?" The Reading Teacher, May 1976.

McKinney, Williams, Ernestine. "Readability Levels of the 1975 Third Grade MacMillan Basal Readers," Reading Improvement, Vol. 20, Spring, 1983, No. 1, 37-40.

Miller, John W. "Cobasal Reading: Adoptions Present Unique Problems," Reading Horizons, Vol. 21, 1980-81, 244-51.

Mobley, Maureen. "The Readability of School Text Books," Language for Learning, Vol. 2(1), February, 1980, 11-19.

Moon, Cliff & Raban, Bridie. A Question of Reading. (Revised), MacMillan Education Ltd., 1980.

Morrow, Lesley Mandel. "Story Structures Represented in Selections of Primary Basal Readers," Reading Improvement, Fall, 1982, Vol. 18-19, 194-99.

Murrell, Carole. "The readability of Work Sheets," A Journal for the Study and Improvement of Reading and Related Skills, 1980, 15-47-51.

Ribovich, J. and Deay, A.M. "Portrayal of the Elderly in Basal Readers," Reading Psychology, vol. 1, no. 1, Fall, 1979, pp. 32-40.

Robin, Butterfield A., et. al. "Popular Basal Reading Series in the International Year of the Child", Journal of Negro Education, Vol XLVIII, No. 3, 1979, 382-89.

Robbins, Ruth H. "Choosing the Right Basal Reader," Curriculum Review, Vol. 19, 1980, 395-99.

Rogers, R. Arnold. "Comparing the Difficulty of Basal Readers," New England Reading Association, Vol. 5(3), Spring, 1970, 35-37.

Rupley, W.H. et. al. "Sex role portrayal in reading materials Implications for the 1980's." The Reading Teacher Vol. 34, No. 7, April, 1981, 786-792.

Rye, James & Sjolander, Pearl. "Readability: The Importance of the Child," A Journal for the Study and Improvement of Reading and Related Skills, Vol. 16, No. 2, July, 1983, (United Kingdom Reading Association), 99-108.

Smith, G.R., Tierney, J.R. Sky Climbers, Level 10 Scott, Foresman Reading. Scott, Foresman and Company, Glenview Illinois. 1981.

Spearritt, Donald. "Measuring Reading Comprehension in the Upper Primary School," Australian Journal of Reading, Vol. 3, No. 2, June, 1980, 67-69.

Sippola, Arne E. "Story Distance in Basal Readers," Reading Teacher, Vol. 35, 1981-82, February 1982, 550-53.

Stauffer, R.G. Teaching Reading as a Thinking Process, New York: Harper and Row, 1969.

Stokes, Alan. "The Readability of Readability Formulae," Journal of Research in Reading, Vol. 1, No. 1, 1979, 20-23.

Watson, J.J. "A positive image of the elderly in literature for children." The Reading Teacher, April 1981, 792-798.

Wheeler, Alan H. "Basal Reading: Decisions to be Made," New England Reading Association, Vol 5(3), Spring, 1970, 29-34.

Zisman, S.B. Improving Illustrative Materials in Textbooks. Educational Screen 1938, 17, 218-219.

APPENDIX A

Questionnaire Sent To Teachers

Instructions
Listed are eight criteria which might be considered when selecting basal readers. They are written in no specific order. You are asked to rate on a scale from one to five the degree of importance of each by circling the appropriate number on the scale provided.

Space is provided at the end to list any further criteria you feel should be listed.

Number of Years of Experience__

Sex__

CRITERIA TO CONSIDER WHEN SELECTING BASAL READERS	Not too important				Very important
	1	2	3	4	5
Suitability of the nature of the learner.					
(a)Maturity of the student-age and grade.	1	2	3	4	5
(b)Social, culture, economic, religious background.	1	2	3	4	5
(c)Need for specific knowledge, skill, development.	1	2	3	4	5
Teachability of the book or learning material for the teacher.					
(a)Familiarity to teachers, reputation of the book.	1	2	3	4	5
(b)Availability of teachers' guides.	1	2	3	4	5
(c)Suitability for enhancing student knowledge, skill, affect.	1	2	3	4	5
(d)Appropriateness for encouraging student interest.	1	2	3	4	5
Appropriateness of the content.					
(a)Balance between contemporary and classical selections.	1	2	3	4	5

(b)School policy based on ministry mandate.	1 2 3 4 5
Physical format of book or learning material.	
(a)Durability of binding.	1 2 3 4 5
(b)Appropriateness of layout and use of illustrations.	1 2 3 4 5
(c)Size and legibility of print.	1 2 3 4 5
(d)Quality of paper.	1 2 3 4 5
(e)Cover design.	1 2 3 4 5
(f)Convenience of size of book or materials.	1 2 3 4 5
Literary merit.	
(a)Thematic concerns reflecting universal and particular applications.	1 2 3 4 5
(b)Depth, scope, variety of characterizations, plot, and setting.	1 2 3 4 5
(c)Masterful control of direction and style.	1 2 3 4 5
Teachability of the book or learning material.	
(a)Readability of work; degree of difficulty of vocabulary.	1 2 3 4 5
(b)Appeal of subject matter, motivational value.	1 2 3 4 5
(c)Complexity of sentence structure.	1 2 3 4 5
Moral and philosophical viewpoint.	
(a)Opportunity for suitable vicarious experience.	1 2 3 4 5
(b)Avoidance of undue emphasis on sex and violence.	1 2 3 4 5
(c)Acceptable treatments of issues relating to race, colour, and creed.	1 2 3 4 5

(d)Contribution to the development of positive attitudes, values and morals.	1	2	3	4	5

Curriculum Gestalt.

(a)Contribution to "total" design for grade 1-6 curriculum.	1	2	3	4	5
(b)Importance of the book or learning material within the particular curriculum.	1	2	3	4	5

Additional criteria that you think should be considered.

_____

_____

_____

_____

APPENDIX B

Criteria Of Cassie And Styles

Reviewing and Selecting Books and Learning Materials for School Use

BY
J. R. BRUCE CASSIE
AND
KEN H. STYLES

1. Nature of the learner
   - (a) maturity of the student - age and grade
   - (b) sex of the student
   - (c) social, cultural, economic, religious background
   - (d) incidence of physical, emotional, or intellectual impairment
   - (e) need for specific knowledge, skill, development
2. Program gestalt
   - (a) contribution to "total" design for K-13 programming
   - (b) uniqueness of contribution to K-13 programming
   - (c) importance of the book or learning materials within the particular program
   - (d) balance provided to promote overall chronological, historial, or genre representation
3. "Teachability" of the book or learning material
   A. Teacher
   - (a) familiarity to teachers, reputation of the work
   - (b) pedagogical preparation of teachers
   - (c) availability of teacher guides
   - (d) suitability for enhancing student knowledge, skill, affect
   - (e) appropriateness for encouraging student interest

   B. Student
   - (a) readability of work, degree of difficulty of vocabulary
   - (b) appeal of subject matter, motivational value
   - (c) complexity of sentence structure
4. Determination of in-school use
   - (a) books issued for regular classroom use
   - (b) class set of books or learning materials
   - (c) class reference material
   - (d) small group reading and study
   - (e) independent reading
5. Appropriateness of content
   A. Ministry policy
   - (a) inclusion of Canadian content
   - (b) balance between contemporary and classical selections
   - (c) avoidance of sex-role stereotyping
   - (d) board policy based on ministry mandate

   B. Literary merit
   - (a) thematic concerns reflecting universal and particular applications
   - (b) depth, scope, variety of characterizations, plot and setting
   - (c) masterful control of diction and style
   - (d) quality of imagery and symbolism
   - (e) aesthetic value

   C. Moral and philosophical viewpoint
   - (a) opportunity for suitable vicarious experience
   - (b) avoidance of undue emphasis on sex and violence
   - (c) understanding of the human condition, its frailties and strengths
   - (d) acceptable treatment of issues relating to race, colour and creed
   - (e) potential for controversial

issues associated with the personal life of the author
(f) contribution to the development of positive attitudes, values and morals
(g) provisions of negative models to encourage student avoidance

D. Language usage
(a) inappropriate or offensive use of language
(b) appropriateness of language in context of characterization and author's intention

6. **Disposition of the teacher, student and parent or guardian**
(a) moral disposition of the teacher, student and parent or guardian
(b) personal reaction of the teacher, student and parent or guardian to the work

7. **Availability**
(a) available from a reputable publisher
(b) potential for restocking from a continuing supply
(c) availability of other works that can accomplish the same instructional purpose (issues, thematic concerns, skill development)
(d) availability of suitable but less controversial learning material

8. **Physical format of book or learning material**
(a) durability of binding
(b) appropriateness of layout and use of illustrations
(c) size and legibility of print
(d) quality of paper
(e) cover design
(f) convenience of size of book or material

9. **Cost**
(a) department or classroom budget
(b) cost to individual student
(c) budgetary considerations of the board
(d) cost relative to importance of material for instructional purposes
(e) availability of required equipment and support services

10. **Legality**
(a) compliance with legal statutes governing the content of print and visual materials
(b) legal protection of the rights of individuals or groups

APPENDIX C

Reading Selections For Readability Measurements And Cloze Tests

Child's Age: Years_____ Months_____

Sex_____

Directions for the Student

Here is a passage. You are asked to fill in the blanks with the best answers. Take as long as you like, there is no time limit. Read the passage through if you wish and don't be afraid to guess at the answers. You may go back and correct answers.

Please use a pencil.

S1

Brick's home is a hospital ward. He and four other children in the ward are confined to bed. None of them can walk. No wonder they like to play the "traveling game" and pretend they are somewhere else. For a few startled seconds after he opened his eyes, Brick didn't know what to think. He couldn't quite believe what he saw, yet he was sure he wasn't dreaming. A few seconds ago it had been nearly midnight, and he had been lying in his bed in Ward Nine at Belleview, trying almost desperately to imagine the exact kind of place where he found himself now. Then a curious sound had made him turn his head and look about and it seemed that the impossible had happened. Belleview had vanished. Instead of the gloom and the dark, there was now a wonderfully warm sun cutting through the mist. Instead of on a hospital bed, he he was on thick green grass, and there were clusters of bright-yellow flowers growing about him. The rumble of city traffic had ceased. In its place he could hear the singing of birds and the musical chatter of a tiny stream running past him down the hillside. As he listened, he was aware again of the curious sound that had made him open his eyes. He couldn't identify it but somehow it didn't seem dangerous. Brick hardly dared move. Was this real or had it all been created by imagination? Not just his own, but the combined imaginations of all five of them back in Ward Nine? Whether it was real or imaginary, something, very strange had happened, and he had to find out all he could

about it. They, the incurables, had been playing the "traveling" game a long time in Ward Nine.

S2

Before I went to *sleep* I gave him more *water*. In the morning I *left* food for him when *I* went down to the *sea*, and when I came *home* he had eaten it. *He* was lying in the *corner*, watching me. While I *made* a fire and cooked *my* supper, he watched me. *His* yellow eyes followed me *wherever* I moved. That night *I* slept on a rock, *for* I was afraid of *him*, and at dawn as *I* went out I left *the* hole under the fence *open* so he could go. *But* he was there when *I* got back, lying in *the* sun with his head *on* his paws. I had *speared* two fish, which I *cooked* for my supper. Since *he* was very thin, I *gave* him one of them, *and* after he had eaten *it* he came over and *lay* by the fire, watching *me* with his yellow eyes *that* were very narrow and *slanted* up at the corners. *Four* nights I slept on *the* rock, and every morning *I* left the hole under *the* fence open so he *could* leave. Each day I *speared* a fish for him *and* when I got home *he* was always at the *fence* waiting for it. He *would* not take the fish *from* me so I had *to* put it on the *ground*. Once I held out *my* hand to him, but *at* this he backed away *and* showed his teeth. On *the* fourth day when I *came* back from the rocks *early*, he was not there *at* the fence waiting. A *strange* feeling came over me. *Always* before when I returned, *I* had hoped that he would be gone. He looked first at the fish I carried and then at me and moved his tail.

S3

Lighthouses around the world help bring ships safely home. In darkness and in fog they warn at dangerous rocks and reefs. They are also landmarks by which ships find their way along the coast. Today most lighthouses are lighted by electricity. In the majority of lighthouses, the lights run automatically. This means that no one need be here all the time. The lantern at the top of a lighthouse is its most important part. The light inside is enclosed in a giant glass lens. The lens turns around the light. Prisms on the lens help bend the light's rays into a single blazing beam. This forms a beacon that helps sailors navigate. By day sailors know a lighthouse by its size, shape and color. By night, they know a lighthouse by its beacon and the color or pattern of the light. Although the light is usually white, sometimes it is colored. Some beacons show a fixed steady light. Others signal by flashing their light according to a special pattern of revolving the lens around the lamp. A flashing pattern has periods of dark and light. In some patterns, the periods of dark are longer. Kerosene was used for years in lighthouse lamps. It made a bright light, although it was a dirty fuel. The smoky lamps had to be cleaned each day and the wicks had to be trimmed. So people who took care of the lights came to be known as wickies. Many stories are told about the brave wickies. Besides tending their lamps, they rescued people who were shipwrecked in rough seas. The families of wickies lived in

the lighthouses, too, *and* were often lonely. There *are* many lighthouses in use *today*. One lighthouse built on a dangerous reef is the Eddystone Light in the English Channel.

G1

As you read this story you will see that the boy and his grandfather had different values and different points of view which they try to tell each other about.

I live-in a room *in* the city with my *grandfather*. I have lived there *as* long as I can *remember*. It is not a *pretty* room, but it has *a* sink, and my grandfather *says* that is lucky. And *on* the wall is a *picture* of a hill with *trees*, and the sky in *the* picture is gold and *red*. My grandfather found the *picture* in a magazine. He *tells* me that is what *a* sunset looks like. First *thing* in the morning my *grandfather* is awake. He walks *over* to the window to *see* if it is a *day* for walking. He does *not* like to stay in *our* room, and there is *nowhere* else to be. And *so* we walk. But before *we* leave, we have something *to* eat, my grandfather and *I*. First on our littler *burner*, then while we are *drinking* our coffee my grandfather *makes* oatmeal. My grandfather says I *must* have oatmeal each day. *He* says that is the *way* my mother would have *wanted* me to eat. "Tell *me* about my mother," I *say*. My grandfather has told *me* many times of my *mother*, but today I want *him* to tell me again. "*Beautiful*, and brown as the *bark* of a tree," says *my* grandfather, "with a smile *to* shame the sun. And *fast* as a brook she *ran*, and her laugher set *the* birds to singing. "Why *did* she die?" I ask. "*No* one dies if they *are* remembered," says my grandfather. "*And* we remember her, you *and* I". The oatmeal is *ready* and today my grandfather *opens* a can of milk *and* pours some on my

oatmeal, and I drink the rest of the milk from the can. Otherwise it will turn sour before we are back in the room again.

G2

For ages we have used the ocean to discover new lands. Now we are spending a great deal of time and money discovering the ocean. We already know a great deal about this last frontier, as it has been called. But we still need to learn much more about it. We know that the ocean is rich in minerals that the world needs. We know, too, that it contains enough minerals to provide protein for all the world's people. We know that if the salt could be taken from it, the ocean could turn the deserts into farm lands. We have begun removing salt from the ocean water, but the process is still too costly to be practical except in special situations. Today's scientists explore the sea in ships outfitted for this purpose. One of these, the Kane, even has a large computer aboard to process the information which the scientists receive each day. Some scientists have descended into the sea's depths in specially built objects called bathyspheres. Sitting in their bathyspheres, the scientists are able to turn on very strong lights which shine through the ocean's darkness and show them the strange sea life inhabiting the depths of the sea. There are also scientists who do work by themselves, depending on native inhabitants of certain ocean areas to help them. Such a one is Eugenie Clark. She founded and directed the Cape Haze Marine Laboratory in Florida for sixteen years. In the following story, she tells of some exciting days in Pacific waters when a native diver called Siakong was her helper.

Siakong was *just* over fifty when I *knew* him. He was the *best* spearfisherman in the Palaus. *I'm* not saying this because *he* taught me spearfishing and one hundred other things about the underwater world. His great skill was an accepted fact among all the Palauans.

G3

Luckily in swimming class Damyan was making such good progress that almost every session he got a nod. And one day the coach even went as far as to say, "Good". Damayan was steadily nudging kolya for top place. Maybe before long, the coach will tell him that he was ready for the advanced class. Wouldn't that be something to tell his friend Igor and Igor's father! But then, all of a sudden, the coach began finding fault with his crawl. There was something wrong with the rhythmn, the coach kept declaring, as time and time again he blew his whistle. The harder Damyan tried, the worse he got. But he didn't know how to help himself, and with every lesson he got steadily worse. Then finally one Monday, disaster came. The day began like any other. Damyan went to school and after school to his swimming class. From the beginning that swimming lesson went badly. Damyan had never swum so poorly. His whole body seemed filled with lead, and only with effort could he move his limbs. Time after time the coach blew his whistle and singled him out for correction. Damyan tried again. Again the coach blew his whistle. Suddenly, Damyan had had enough. The instant the coach finished still another demonstration of what he wanted Damyan to do, with one swift upward lunge Damyan lifted himself out of the pool and ran blindly for the locker room. Even before he reached it, he was filled with horror at what he was doing. But it was too late to turn back. With jerky movements, he put on his clothes,

combed *back* his wet hair with *his* hand, and went stalking *out* of the building. All the while there was a big hope inside him.